

Prestige

50 - 75 - 120

*Installation, operating
and maintenance instructions*



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IMPORTANT NOTES

WHO SHOULD READ THESE INSTRUCTIONS

These instructions should be read by:

- the specifying engineer
- the user
- the installer
- the service engineer

SYMBOLS

The following symbols are used in this manual:



Essential instruction for the correct operation of the installation.



Essential instruction for the safety of persons and the environment.



Electrocution hazard: use a qualified technician.



Burn hazard.

RECOMMENDATIONS



- Before installing and commissioning the boiler, first carefully read this manual.
- It is prohibited to modify the interior of the appliance in any way, without the manufacturer's prior written agreement.
- The boiler must be installed by a qualified engineer in accordance with applicable local standards and codes of practice.
- Failure to follow the instructions describing test operations and procedures could result in personal injury or a risk of environmental pollution.
- In order to ensure the appliance operates safely and correctly, it is important to have it serviced by an approved installer.
- If there is a problem please contact your installer for advice.
- In spite of the strict quality standards that ACV applies to its appliances during production, inspection and transport, faults may occur. Please immediately notify your approved installer of any faults. Remember to indicate the fault code as it appears on the screen.

- Defective parts can only be replaced with original factory parts. You will find a list of spare parts and their ACV reference number at the end of this manual.

- Special rule in Belgium: for Prestige Solo 50 - 75
The CO₂, gas flow, air flow and air/gas supply parameters are factory preset and cannot be changed in Belgium.



- Before carrying out any work on the boiler, it is important to isolate the electrical supply.
- The user must not attempt to gain access to the components inside the boiler or the control panel.

CERTIFICATION

The appliances bear the "CE" mark, in accordance with the standards in force in the various countries [European Directives 92/42/EEC "Efficiency" and 90/396/EEC "Gas Appliances"]. These appliances also bear the Belgian quality label "HR-TOP" [condensing gas boiler].



IMPORTANT NOTES

IF YOU SMELL GAS:

- Immediately shut off the gas supply.
- Ventilate the room (Open the windows).
- Do not use electrical appliances and do not switch anything on or off.
- Immediately notify your gas supplier and/or your installer.

This manual forms part of the items delivered with the appliance and must be given to the user to keep in a safe place!

The system must be installed, commissioned, serviced and repaired by an approved installer, in accordance with current standards in force.

The manufacturer declines all liability for any damage caused as a result of incorrect installation or in the event of the use of appliances or accessories that are not specified by the manufacturer.



The manufacturer reserves the right to change the technical characteristics and features of its products without prior notice.



The availability of certain models as well as their accessories may vary according to markets.

DESCRIPTION OF THE TECHNICAL SPECIFICATIONS

The **Prestige** is a wall-hung condensing boiler meeting the requirements of current “**HR-Top**” standards in Belgium. The boiler is certified compliant with “**EC**” standards as a connected appliance: **C13(x)** - **C33(x)** - **C33s** - **C43(x)** - **C53** - **C83(x)**, but it can also be connected as an open appliance in category **B23** or as an appliance of category **B23P**, which can operate with a positive pressure.

HOUSING

The boiler is enclosed in a steel housing, which has been treated with a degreasing and phosphatizing process, then spray painted and baked at 220°C. The inside of this housing is lined with a layer of thermal and sound insulation, which minimizes losses.

HEAT EXCHANGER

The core of the **Prestige** features a new stainless steel heat exchanger that is the fruit of exhaustive research and intensive laboratory testing. This exchanger reflects ACV's 80 years of experience in using stainless steel for heating and hot water generation systems. The special shape of the heat exchanger is calculated to obtain a very high Reynolds number throughout all its cycles. The **Prestige** thus achieves an exceptional output that remains stable throughout the boiler's life, given that it causes no oxidation on the exchanger, which is manufactured entirely from high-quality steel.

BURNER

ACV uses its BG 2000-M burner for the **Prestige**: this is a modulating air/gas premix burner providing safe and quiet operation while limiting emissions (NOx and CO) to an incredibly low level. Although the ACV BG 2000-M burner is very modern, it uses proven technology and is manufactured using standard spare parts that are easily available on the market.

TEMPERATURE CONTROL

The basic version of the **Prestige** is fitted with a regulator controlled by an MCBA microprocessor [Micro-Controlled Boiler Automate], which handles the safety functions (ignition, flame monitoring, temperature limitation, etc.) and the temperature control of the boiler. This MCBA also features a regulator governed by outdoor weather conditions. Simply connect the outdoor temperature sensor, available as an option.

However, this regulator can also operate with a standard room thermostat (on/off). Combining this regulator with a room thermostat provides temperature control governed by outdoor weather conditions, with indoor compensation.

The user may access four parameters to adjust all the necessary settings. By entering a specific maintenance code into the unit, qualified installers may access certain parameters, in order to adapt the boiler to special requirements. In principle, these are factory preset for all normal applications.

HOT WATER GENERATION

- It is specially designed to operate only as a heater or in combination with the whole range of ACV water tanks. The Smart Line range is the number one choice for domestic or commercial applications.

FROST PROTECTION

The boiler features a built-in frost protection mechanism: as soon as the flow temperature [NTC1 probe] drops below 7°C, the central heating pump is activated. As soon as the flow temperature is at 3°C, the burner starts up until the flow temperature rises above 10°C. The pump continues to run for around 10 minutes.

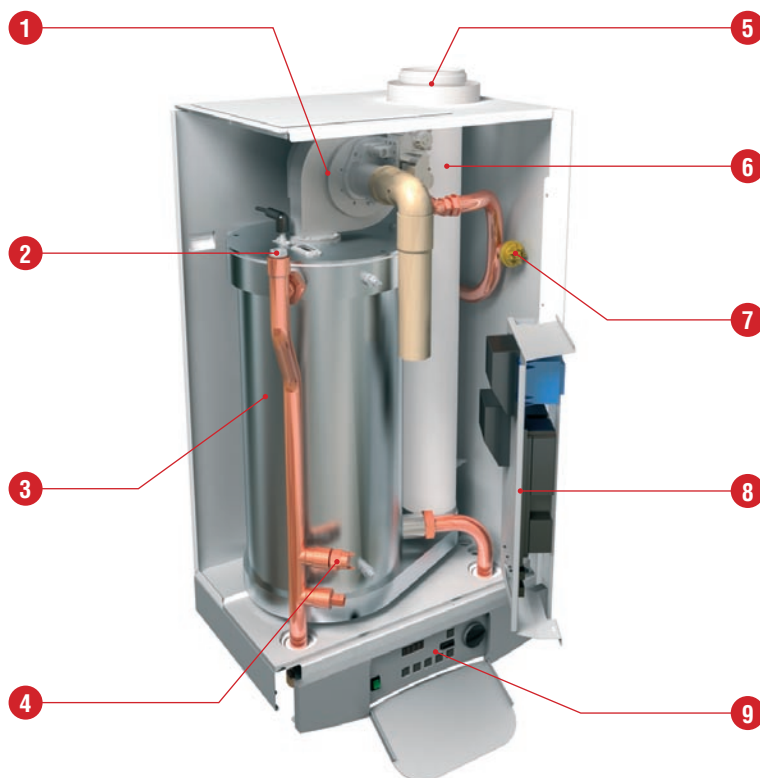
If an outdoor temperature probe is connected, the pump is activated when the outside temperature drops below the preset threshold.

In order to enable the **Prestige** boiler to protect the whole system against freezing, all the valves of the radiators and the convectors should be completely open.

INTRODUCTION

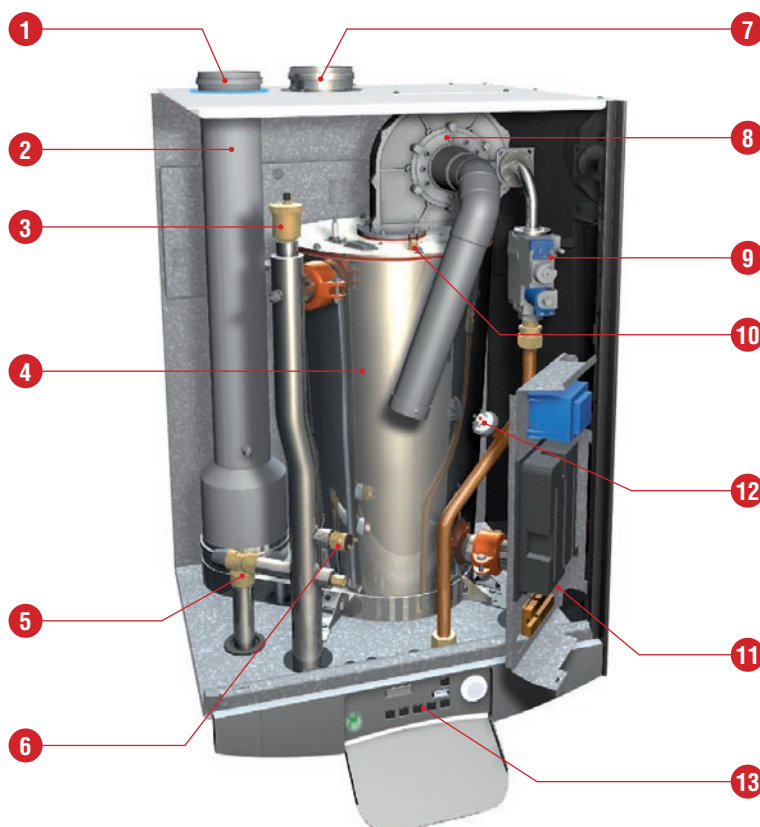
Prestige Solo 50 – 75

1. Modulating Air/Gas premix burner
2. Manual air vent
3. Stainless steel heater body
4. Low-water-level pressure switch
5. Concentric chimney connection Ø 100/150 mm
6. Chimney tube
7. Gas pressure switch
8. Electrical panel
9. Control panel



Prestige Solo 120

1. Chimney connection Ø 100 mm
2. Chimney tube
3. Auto-air vent
4. Stainless steel heater body
5. Safety valve
6. Low-water-level pressure switch
7. Air intake connection Ø 100 mm
8. Modulating Air/Gas premix burner
9. Gas valve
10. Safety thermostat
11. Electrical panel
12. Gas pressure switch
13. Control panel



INSTRUCTIONS FOR USE

Your system must be inspected and serviced once a year by an approved installer.

Starting the burner

During operation, the burner starts automatically as soon as the temperature of the boiler drops below the set point and turns off as soon as the boiler reaches that temperature.

Control panel



Heating system

The heating system must be pressurised (see in the "commissioning" section how to determine the service pressure). The pressure is indicated on the gauge on the right-hand side of the display.



In the case of repeated fills, contact your installer.

The heating circuit pressure must be at least 1 bar and must be checked regularly by the user. If the pressure drops below 0.5 bar, the built-in water pressure switch blocks the appliance until the system's pressure goes back to over 0.8 bar. The installer may also fit the system with a separate valve. Make sure that the appliance is always turned off when filling the system. To do so, flip the on/off switch located to the left of the control panel. (see control panel)

For more information, please ask your installer when the system is delivered.

SETTING THE PARAMETERS



Domestic hot water temperature setting:

(Hot water temperature)

- Press "**mode**" once: the screen indicates "**PARA**".
- Press "**step**": the first digit is **1** and the last two digits indicate the current hot water temperature setting.
- To change this temperature, press "+" or "-" keys until the temperature indicated by the last two digits is the desired temperature.
- Press "**store**" to save the setting.
- Press "**mode**" twice to return to normal operating mode [Stand-by].

Enabling and disabling hot water mode:

(hot water)

- Press "**mode**" once: the screen displays "**PARA**".
- Press "**step**" twice: the first digit is **2** and the last two digits indicate the current setting: **00** = disabled; **01** = enabled.
- To change this parameter, press the "+" or "-" keys until you reach the desired value:
00 = disabled; **01** = enabled.
- Press "**store**" to save the setting.
- Press "**mode**" twice to return to normal operating mode [Standby].

Enabling and disabling central heating mode:

(central heating)

- Press "**mode**" once: the screen displays "**PARA**".
- Press "**step**" three times: the first digit is **3** and the last two digits indicate the current setting: **00** = disabled; **01** = enabled.
- To change this parameter, press the "+" or "-" keys until you reach the desired value:
00 = disabled; **01** = enabled.
- Press "**store**" to save the setting.
- Press "**mode**" twice to return to normal operating mode [Standby].

Setting the temperature of the central heating:

(the maximum temperature for the heating circuit)

- Press "**mode**" once: the screen displays "**PARA**".
- Press "**step**" four times: the first digit is **4** and the last two digits indicate the current temperature setting for the central heating.
- To change this temperature, press the "+" or "-" keys until the temperature indicated by the last two digits is the desired temperature.
- Press "**store**" to save the setting.
- Press "**mode**" twice to return to normal operating mode [Standby].

Fault:

The temperature setting of the appliance and the safety functions of its various parts are constantly monitored by a regulator controlled by the microprocessor (MCBA). If a fault occurs, the MCBA turns the unit off and indicates an error code: the display flashes and the first character is an "E" followed by the code of the fault (see list of faults)

To reset the unit:

- Press "**reset**" on the screen.
- If the fault code appears again, contact your installer.

TECHNICAL CHARACTERISTICS

Prestige Solo 50 - 75

Central heating		Natural Gas		Propane	
		50	75	50	75
Max heat input [Input]	kW	49,9	72	49,9	72
Min. heat input [Input]	kW	15	18,3	15	18,3
Max output 80/60°C	kW	48,4	69,9	48,4	69,9
Min. output 80/60°C	kW	14,7	17,9	14,7	17,9
Efficiency at 30% load [EN677]	%	107,8	107,8	107,8	107,8

Flue gas

CO emission (max / min output power)	mg/kWh	45 / 20	52 / 20	89 / 37	118 / 37
NOx emissions [max / min output power]	mg/kWh	66 / 30	62 / 38	70 / 53	71 / 60
NOx class [EN483]		5	5	5	5
Flue gas temperature - Max output power 80/60°C	°C	82	82	80	80
Flue gas temperature - Max. output power 50/30°C	°C	40	40	39	39
Mass flow rate of combustion products	kg/h	79	115	79	115
Flue-gas duct - max. pressure drop	Pa	150	150	150	150
Concentric flue gas channel max length Ø 100 / 150 mm	m	20	20	20	20

Gas

Gas flow rate G20 - 20 mbar	m³/h	5,28	7,6	•	•
Gas flow rate G25 - 25 mbar	m³/h	6,14	8,8	•	•
Gas flow rate G31 - 30/37/50 mbar	m³/h	•	•	2,0	2,9
CO ₂ [max output power] (with front panel closed)	% CO ₂	9,4	9,4	10,8	10,8
CO ₂ [max power] (with front panel open)	% CO ₂	9,2	9,2	10,5	10,5
CO ₂ [min power] (with front panel closed)	% CO ₂	9,3	9,3	10,4	10,4
Gas connection (male)	Ø	3/4"	3/4"	3/4"	3/4"

Hydraulic parameters

Max operating temperature	°C	90	90	90	90
Heating circuit capacity	L	20	17	20	17
Max operating temperature of the heating circuit	bar	4	4	4	4
Heat exchanger pressure drop [ΔT = 20°C]	mbar	30	74	30	74
Heating connection (male)	Ø	1 1/4"	1 1/4"	1 1/4"	1 1/4"

Electrical connection

Class	IP	30	30	30	30
Supply voltage	V/Hz	230 / 50	230 / 50	230 / 50	230 / 50
Maximum absorbed electrical power	A	0,8	1,1	0,8	1,1

Drained weight	kg	54	58	54	58
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TECHNICAL CHARACTERISTICS

		Prestige Solo 120			
		Natural Gas		Propane	
		G20 20 mbar	G25 25 mbar	G30 28-30-50 mbar	G31 30-37-50 mbar
Central heating					
Max. rated heat input	kW	80 - 120	80 - 120	80 - 126	80 - 126
Min. rated heat input	kW	22	22	31	31
Max. output 80/60°C	kW	78,1 - 116,6	78,1 - 116,6	78,1 - 122,4	78,1 - 122,4
Min. output 80/60°C	kW	21,6	21,6	30,4	30,4
Max. output 50/30°C	kW	84,8 - 127,2	84,8 - 127,2	84,8 - 133	84,8 - 133
Min. output 50/30°C	kW	23,5	23,5	33,2	33,2
Efficiency at 30% load [EN677]	%	108	108	108	108

Flue gas

CO emission (max / min output power)	mg/kWh	77 - 2	77 - 2	100 - 5	100 - 5
NOx emissions [max / min output power]	mg/kWh	70 - 26	70 - 26	80 - 30	80 - 30
Flue gas temperature - Max output power 80/60°C	°C	83	83	81	81
Flue gas temperature - Max. output power 50/30°C	°C	65	65	63	63
Mass flow rate of combustion products	kg/h	114 - 171	114 - 171	120 - 190	120 - 190
Flue-gas duct - max. pressure drop	Pa	150	150	150	150
Concentric flue gas channel max length Ø 100 / 150 mm	m	NA	NA	NA	NA

Gas

Max rated gas flow rate	m³/h	8,5 - 12,7	9,8 - 14,4	2,5 - 3,9	3,3 - 5,1
Min. rated gas flow rate	m³/h	2,32	2,74	0,96	1,24
CO ₂ [max output power] (with front panel closed)	% CO ₂	9	9	10,3	10,3
CO ₂ [max power] (with front panel open)	% CO ₂	8,8	8,8	10,1	10,1
CO ₂ [min power] (with front panel closed)	% CO ₂	8,5 - 9,5	8,5 - 9,5	10 - 10,5	10 - 10,5
Gas connection (male)	Ø	1"	1"	1"	1"

Hydraulic parameters

Max operating temperature	°C	90	90	90	90
Heating circuit capacity	L	28	28	28	28
Max operating temperature of the heating circuit	bar	4	4	4	4
Heat exchanger pressure drop [ΔT = 20°C]	mbar	80	80	85	85
Heating connection (male)	Ø	1"1/2	1"1/2	1"1/2	1"1/2

Electrical connection

Class	IP	30	30	30	30
Supply voltage	V/Hz	230 / 50	230 / 50	230 / 50	230 / 50
Maximum absorbed electrical power	A	1,1	1,1	1,1	1,1

Drained weight	kg	83	83	83	83
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TECHNICAL CHARACTERISTICS

Gas categories Prestige Solo 50 - 75 - 120

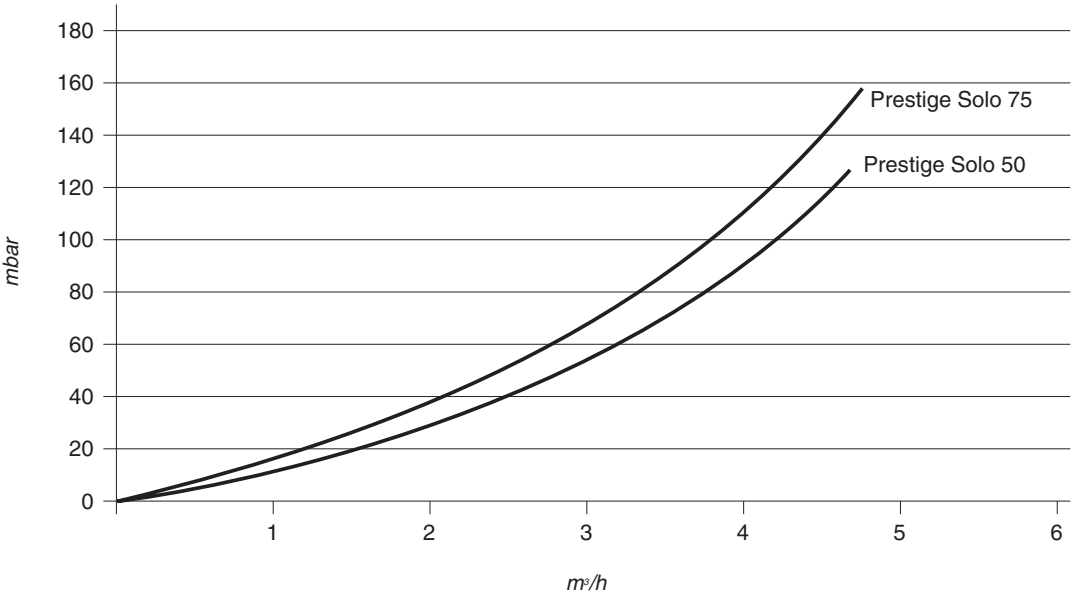
	I2E(S)B *	I2E(R)B **	II2H3B/P	II2H3P	II2E3B/P	II2Er3P	II2L3B/P	II2L3P	I3P
G20	20 mbar		20 mbar	20 mbar	20 mbar	20 mbar			
G25	25 mbar					25 mbar	25 mbar	25 mbar	
G30			30 - 50 mbar		30 - 50 mbar		30 - 50 mbar		
G31			30 - 50 mbar	37 - 50 mbar	30 - 50 mbar	37 - 50 mbar	30 - 50 mbar	37 - 50 mbar	37 mbar
BE Belgium	•								•
CH Switzerland			•	•					
CZ Czech republic			•	•					
DE Germany					•				
DK Denmark			•						
EE Estonia			•						
ES Spain				•					
FR France				•		•		•	
GB Great Britain				•					
GR Greece			•	•					
IE Ireland				•					
IT Italy			•	•					
LU Luxembourg					•				
LT Lithuania			•						
NL Netherlands							•	•	
PL Poland					•				
PT Portugal				•					
SI Slovenia			•	•					
SK Slovakia			•	•					
SE Sweden			•						

(*) : I2E(S)B = Prestige Solo 50 - 75

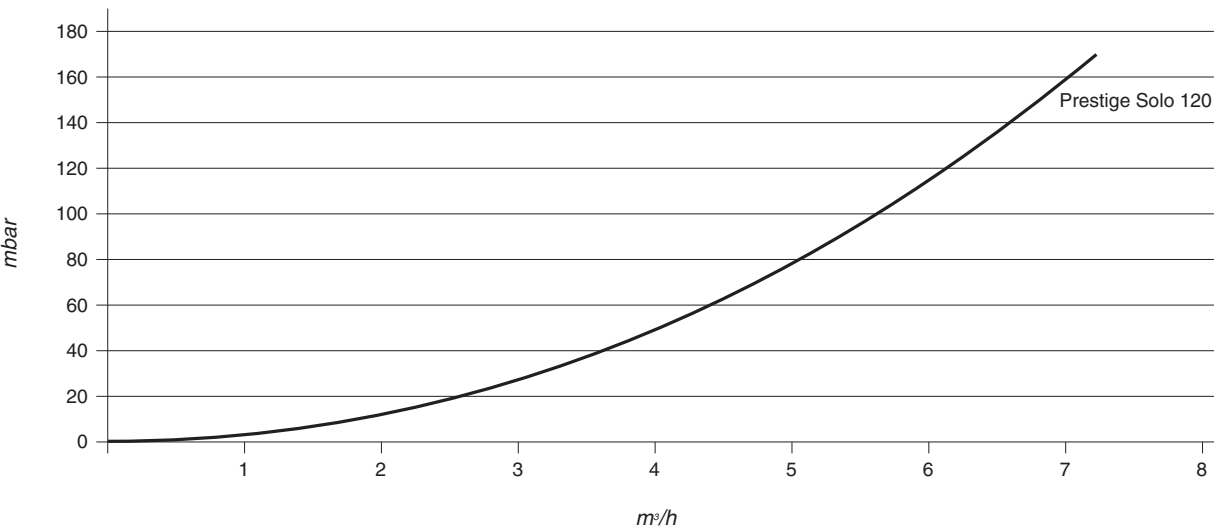
(**) : I2E(R)B = Prestige Solo 120

TECHNICAL CHARACTERISTICS

Pressure drop diagram for Prestige Solo 50 - 75



Pressure drop diagram for Prestige Solo 120

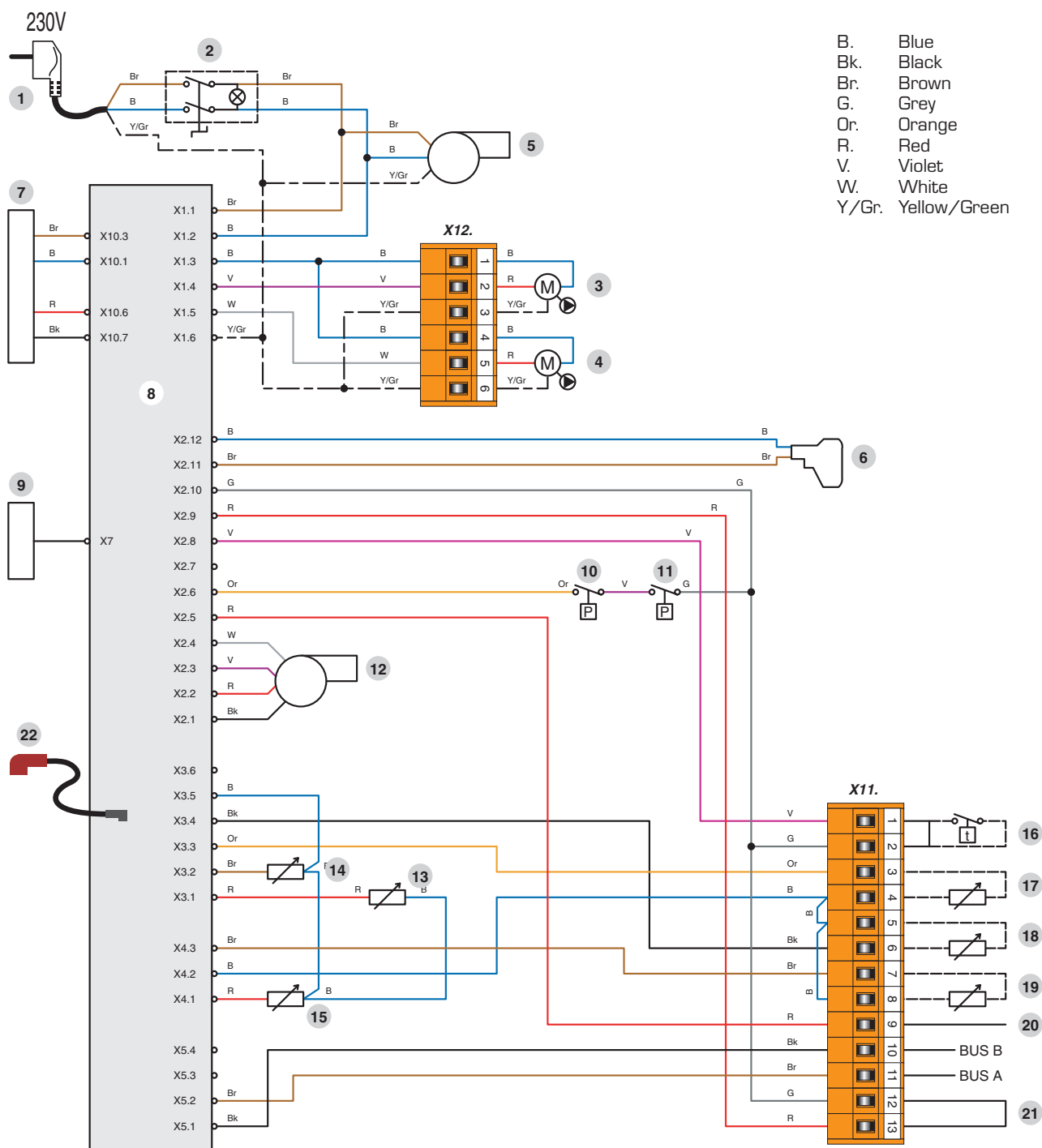


WIRING DIAGRAM: PRESTIGE SOLO 50 - 75



1. 230V power cord
2. On/Off switch
3. Heating circulator (optional)
4. Domestic hot water circulator (optional)
5. Burner feed
6. Gas valve rectifier
7. 230 Volt - 24 Volt transformer
8. MCBA
9. Display
10. Gas pressure switch
11. Low-water-level pressure switch
12. Burner PWM plug
13. NTC1 flow sensor
14. NTC2 return sensor
15. NTC5 flue-gas temperature sensor
16. Room thermostat (optional)
17. NTC3 hot water sensor (optional)
18. NTC4 outside temperature sensor (optional)
19. Flow sensor of second NTC6 heating circuit (optional)
20. Zero volt of 24V circuit
21. RAM high limit thermostat (optional)
22. Ignition and ionisation cable

B. Blue
Bk. Black
Br. Brown
G. Grey
Or. Orange
R. Red
V. Violet
W. White
Y/Gr. Yellow/Green

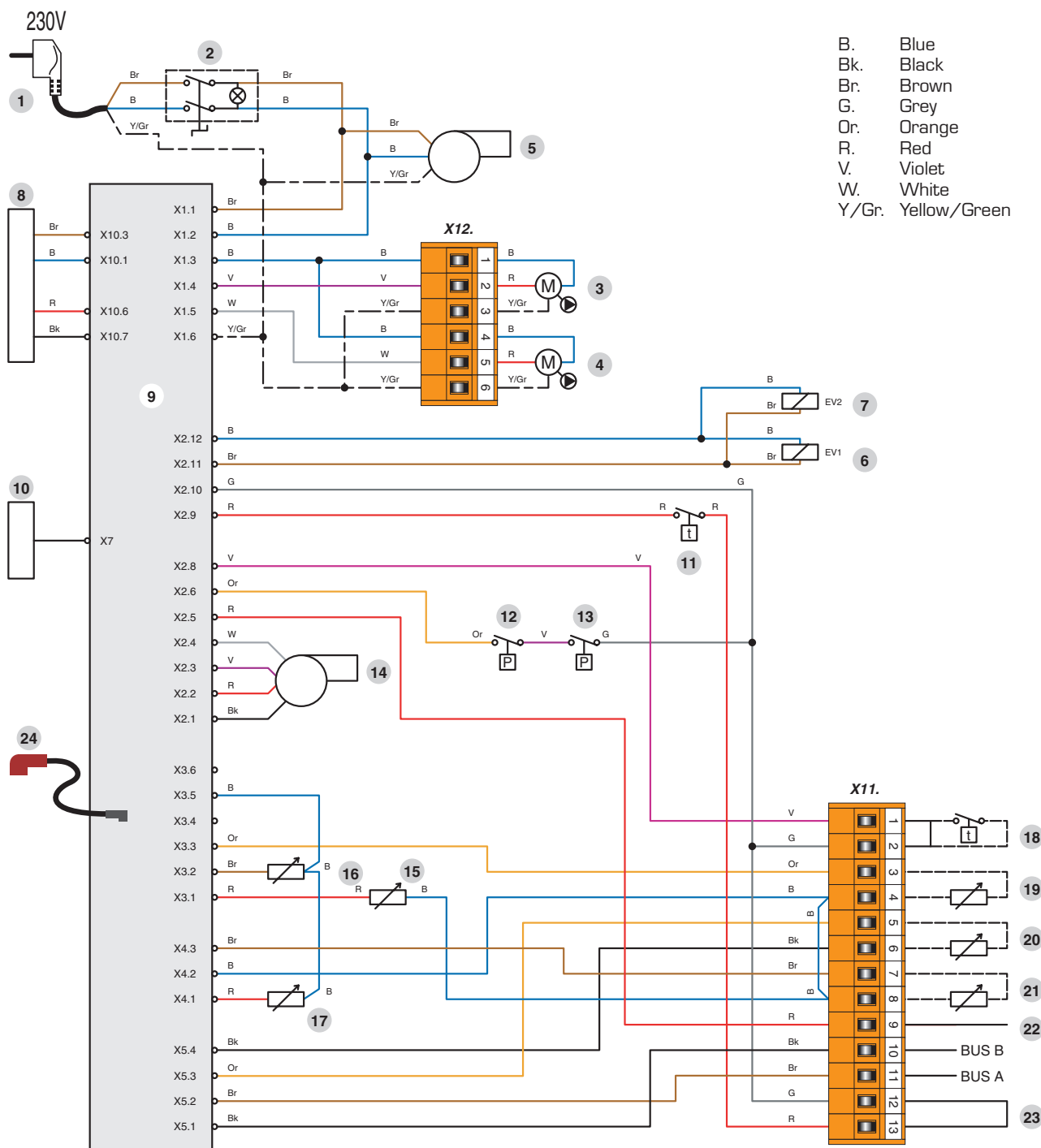


WIRING DIAGRAM: PRESTIGE SOLO 120



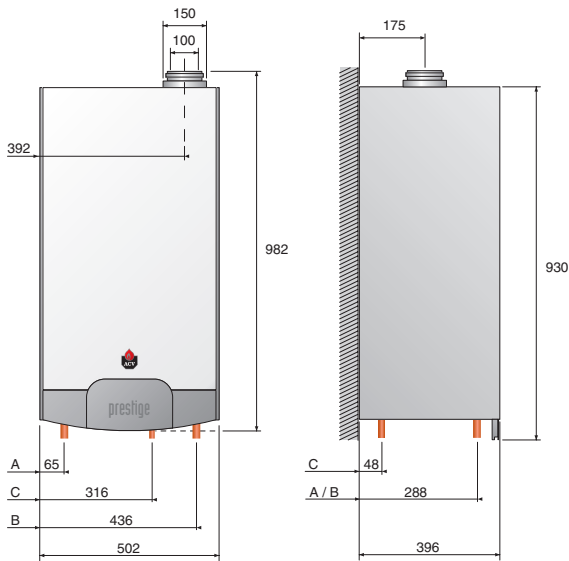
1. 230V power cord
2. On/Off switch
3. Heating circulator (optional)
4. Domestic hot water circulator (optional)
5. Burner feed
6. Gas valve 1
7. Gas valve 2
8. 230 Volt - 24 Volt transformer
9. MCBA
10. Display
11. Safety thermostat
12. Gas pressure switch
13. Low-water pressure switch
14. Burner PWM plug
15. NTC1 flow sensor
16. NTC2 return sensor
17. NTC5 flue-gas temperature sensor
18. Room thermostat (optional)
19. NTC3 domestic hot water sensor (optional)
20. NTC4 Outside temperature sensor (optional)
21. NTC6 flow sensor for second heating circuit (optional)
22. Zero volt of the 24 Volt circuit
23. RAM high limit thermostat (optional)
24. ignition and ionisation cable

B. Blue
 Bk. Black
 Br. Brown
 G. Grey
 Or. Orange
 R. Red
 V. Violet
 W. White
 Y/Gr. Yellow/Green



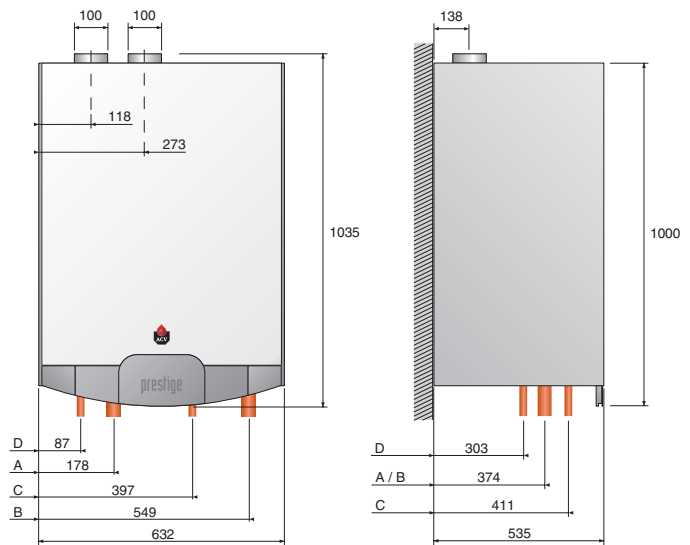
INSTALLATION INSTRUCTIONS

PRESTIGE SOLO 50 - 75 DIMENSIONS



- A. Heating outlet 1" 1/4 [M]
- B. Heating return 1" 1/4 [M]
- C. Gas connection 3/4" [M]

PRESTIGE SOLO 120 DIMENSIONS



- A. Heating outlet 1" 1/2 [M]
- B. Heating return 1" 1/2 [M]
- C. Gas connection 1" [M]
- D. Connection to the 1" safety valve [M]

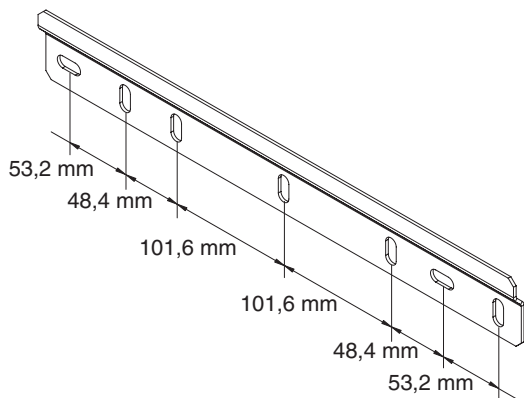
INSTALLATION AREA

- Make sure that any ventilation openings remain clear at all times.
- Do not store any flammable materials in this room.
- Do not store any corrosive materials, paint, solvents, salts, chlorine products or any other detergent products in the vicinity of this appliance.
- If you smell gas, do not turn on any lights, close the gas valve on the meter, ventilate the rooms and contact your installer.

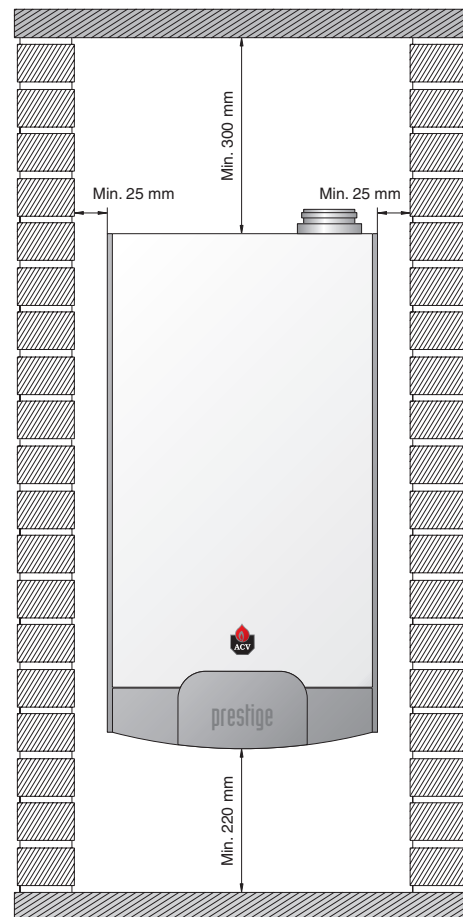
ACCESSIBILITY

The appliance must be placed in such a way that it is always easily accessible. Furthermore, the unit must have the following minimum clearance around it.

WALL MOUNTING



- The boiler must be mounted on a non-flammable surface.
- Drill two holes with a depth of 75 mm using a 10 mm drill bit, following the spacing given above.
- Fasten the wall mount using the supplied lag screws.
- Attach the boiler to the wall mount.



INSTALLATION

CHIMNEY CONNECTION

- The chimney connections must comply with the NBN D51-003 standard and in accordance with current regulations.
- Thanks to its built-in gas/air ratio regulator, the **Prestige** is, to a large extent, independent of pressure drops in the air intake and flue-gas exhaust systems. However, the maximum pressure drop of this system may not be exceeded; otherwise, the pressure would diminish, and in the case of the Prestige 120, the air pressure switch would lock out the boiler. However, the gas/air ratio regulator always guarantees optimal combustion with very low emissions.
- The horizontal flue gas exhaust ducts must be installed with a sufficient degree of slope towards the boiler: 3° of slope = 5 mm per meter of duct.
- There must be no obstructions or inlets to other appliances within a radius of 0.5 meters around the terminal of the **Prestige**.
- **The maximum pressure drop of the chimney is 150 Pascal.** You can calculate this value using the following table: *(please see sample calculation as well)*.
- The C33s configuration enables airtight operation in a pre-existing chimney. The combustion air crosses the space between the tubing and the pre-existing chimney. Make sure to clean the pre-existing chimney thoroughly prior to installation, especially if there is soot or tar residue. Make sure that there is a clearance area for the combustion air at least equivalent to the area that would have been provided by separate concentric ducts or air intake ducts.

Sample calculation

Prestige Solo 50/75:

The diagram below consists of the following parts: pipe with a monitoring section + 2 90° pipe bends + 2 meters of horizontal pipe + 2 45° pipe bends + (2 + 1 + 1) meters of vertical and sloped pipe + one vertical terminal unit.

The resistance of this system is as follows: $3 + (2 \times 12) + (2 \times 6) + (2 \times 5,5) + (4 \times 6) + 25 = 99 \text{ Pa}$.

As this value is lower than the maximum authorised resistance, this installation is compliant.

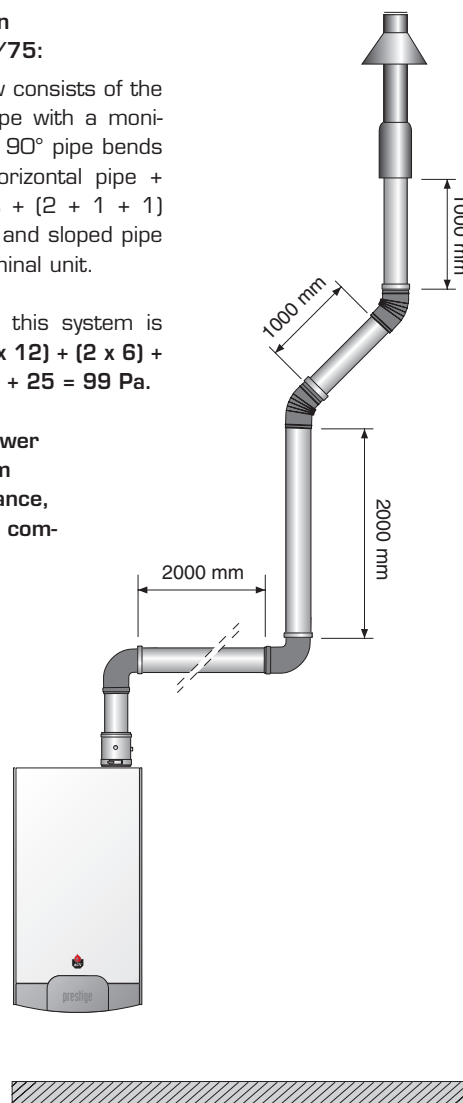


Table of chimney pressure drop in Pascal (1 Pascal= 0.01 mbar)

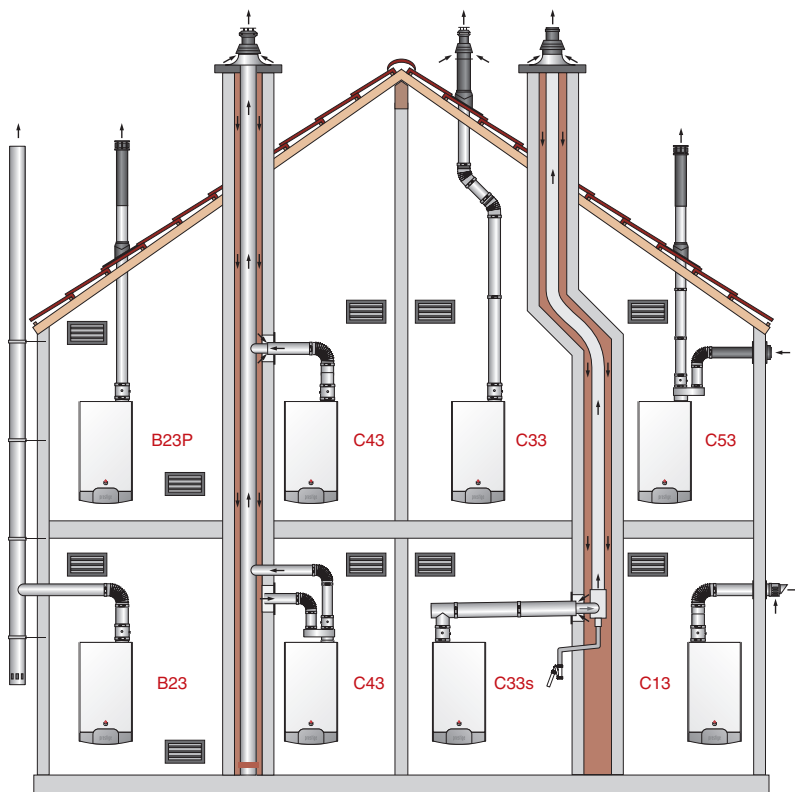
Prestige Solo 50 - 75

Prestige Solo 120

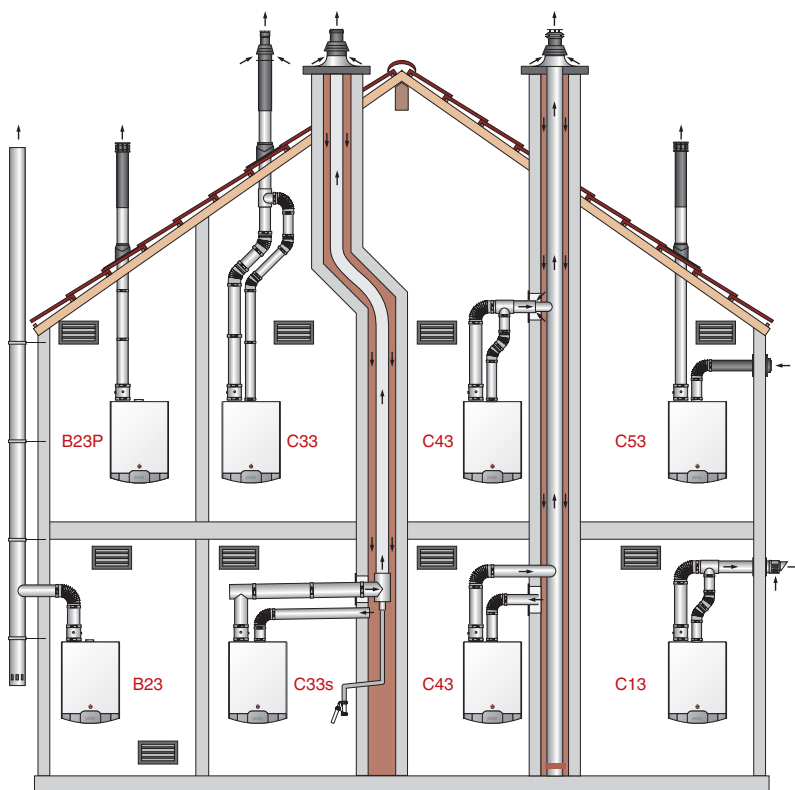
	Concentric pipe Ø 100 / 150 mm	Separate air inlet Ø 100 mm	Separate flue gas exhaust Ø 100 mm	Concentric pipe Ø 100 / 150 mm	Separate air inlet Ø 100 mm	Separate flue gas exhaust Ø 100 mm
Straight pipe 1 m	6	1,7	2,5	—	4,0	6,0
Pipe with monitoring feature	3	—	1,3	—	—	3,0
90° bend	12	5,1	7	—	13	18
45° bend	5,5	2,1	3	—	5,4	8,0
Vertical terminal	25	—	—	65	25	50
Horizontal terminal	20	—	—	65	20	50

This table is based on ACV equipment and cannot be applied elsewhere.

Chimney connection options:



Prestige Solo 50 - 75



Prestige Solo 120

- B23** : Connection to an exhaust duct venting the combustion products outside of the installation area, with the combustion air being drawn directly from this area.
- B23P** : Connection to an exhaust system of the combustion products designed to operate with positive pressure.
- C13** : Connection by pipes with horizontal terminal units that simultaneously intake the combustion air and discharge the combustion products outside through openings that are either concentric or close enough together to be subjected to similar wind conditions.
- C33** : Connection by pipes with vertical terminal units that simultaneously intake fresh air and discharge the combustion products outside through openings that are either concentric or close enough together to be subjected to similar wind conditions.
- C33s** : Connection with an individual system of which the exhaust duct for the combustion products is installed in an exhaust pipe that is part of the building. The appliance, the exhaust duct and the terminal units are certified as an assembly that cannot be dissociated.
- C43** : Connection by two ducts to a collective duct system serving more than one appliance; this system of collective ducts features two ducts connected to a terminal unit that simultaneously intakes fresh combustion air and discharges the combustion products outside through openings that are either concentric or close enough together to be subjected to similar wind conditions.
- C53** : Connection to separate ducts for the supply of combustion air and for venting the combustion products; these ducts may end in zones with different pressure levels.

INSTALLATION

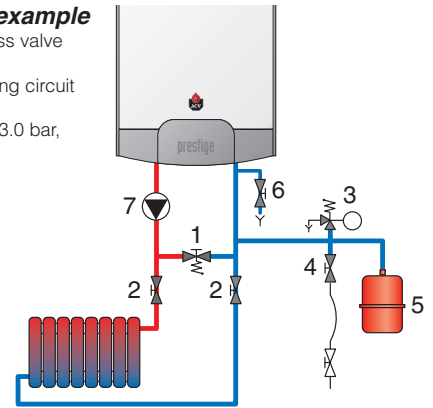
CENTRAL HEATING CONNECTIONS

Recommendations

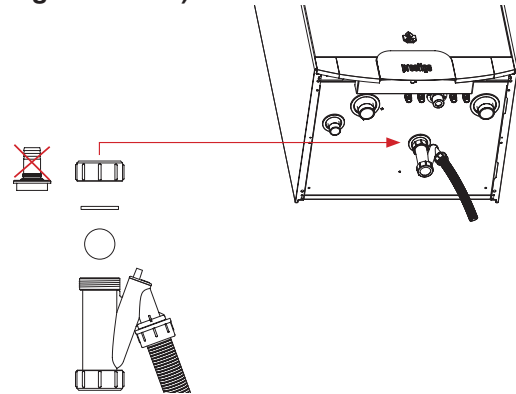
- The whole central heating system must be thoroughly flushed with clean water before being connected to the appliance.
- Level the appliance using the provided support bracket.
- Noise may be amplified when the appliance is mounted on a wall made of wood or other lightweight construction. Using rubber dampers may reduce this effect.
- The heating connections are Ø 1 1/4" male [Prestige Solo 50 - 75] and Ø 1 1/2" male [Prestige Solo 120].
- Fit the heating system with a safety valve set to max. 3.0 bar, connected to the drain, using a connection with an open section (for inspection purposes), a suitable circulator according to the pressure drops [boiler + system] and to the flow rate of the system.
- The Prestige Solo 120 boiler is fitted with a safety valve set to 3.0 bar. Connect this to the drain, using a connection with an open section (for inspection purposes) and a suitable circulator according to the pressure drops [boiler + system] and to the flow rate of the system.
- Fill the system with fresh tap water. Contact your ACV representative about the use of inhibitors.
- The heating circuit must be designed so as to ensure a continuous flow in the boiler; this flow may be obstructed if all the thermostatic valves are closed. In this case, install a bypass.
- Fit the condensate trap and connect the hose to the drain using a connection that can be inspected. Fill the trap with clean water. Make sure to prevent any risk of the condensates freezing.

Heating connection example

1. Differential pressure bypass valve
2. Isolating valve in the heating circuit
3. Safety valve calibrated to 3.0 bar, with pressure gauge
4. System filling kit
5. Expansion vessel
6. Drain valve
7. Heating pump



ASSEMBLING THE BALL CONDENSATE TRAP (Prestige Solo 120)



GAS CONNECTION

- Our **Prestige** boilers are fitted with a gas connection [Ø 3/4" male Prestige Solo 50 - 75] [Ø 1" male Prestige Solo 120] for connection to a gas supply valve.
- The gas connections must comply with all applicable standards (in Belgium: NBN D51-003).
- If there is a risk of dirt stemming from the gas network, place a gas filter upstream from the connection.
- Purge the gas pipe and check in minute detail that all the boiler's internal and external pipes are sealed.
- Check the system's gas pressure. Please refer to the table with the technical data.
- Check the gas pressure and consumption when commissioning the appliance.

SETTING THE POWER (Prestige Solo 120)

The power of the boiler may be adjusted from 80 to 120 kW for natural gas and from 80 to 126 kW for propane gas.

Adjust the power by setting the speed parameters of the fan as shown in the table below.

For the CO₂ setting, please refer to the technical data.



Indicate the **Qset** heatinput setting in the data plate.

Prestige Solo 120

Heat input Q			80 kW	100 kW	115 kW*	120 kW	126 kW
G20 - G25 CO ₂ = 9% RPM min. = 1500	Fan speed	rpm	4300	5400	6200	6500	NA
	Mass flow rate of combustion products	kg/sec.	0,0324	0,0405	0,0465	0,0486	NA
G30 - G31 CO ₂ = 10,3% RPM min. = 2000	Fan speed	rpm	4100	5200	5900	6200	6500
	Mass flow rate of combustion products	kg/sec.	0,0336	0,042	0,048	0,050	0,053

(*) Factory setting

PROPANE CONVERSION

As indicated on the data plate, the boiler is factory preset to operate with G20 gas and G25 gas.

To convert the boiler to G30 gas or G31 type gas, it is necessary to:

- change the orifice
- adjust the CO₂
- adjust parameters 13 to 19 of the MCBA (see MCBA parameters for the specialist).

The CO₂ parameters to be set are indicated in the technical data table.

Changing the orifice:

1. Turn off the gas and electric power supplies.
2. Unscrew the three-piece connection (A) of the gas pipe below the valve.
3. Unplug the gas valve (B).
4. Disassemble the gas valve-venturi assembly (C).
5. Remove the gas valve from the venturi (D) and change the orifice (F).



Important: make sure to position the seal(s) (E) of the orifice correctly.

6. Reassemble the gas valve-venturi assembly, following the same procedure in reverse order.



Check that the boiler has no gas leaks while operating.

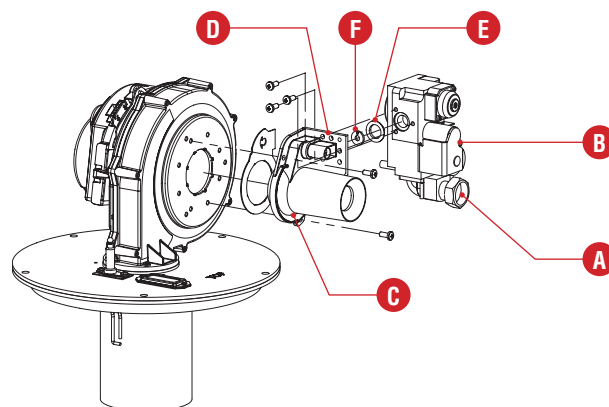


Conversion is not allowed in every country; please refer to the category table.

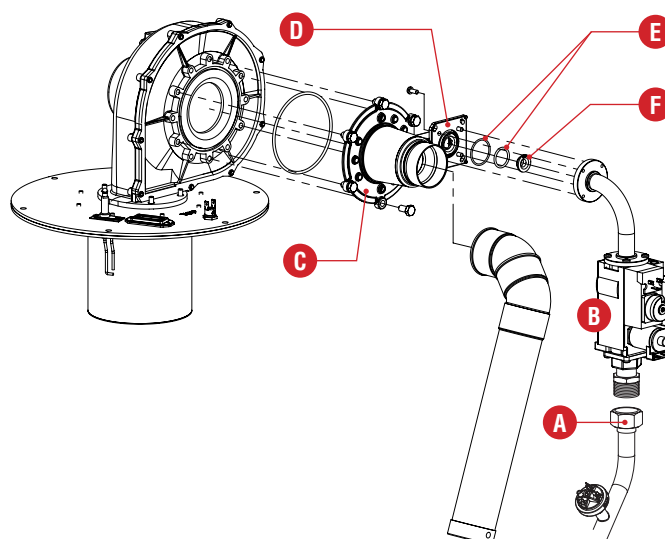


Before adjusting the CO₂, it is important to set the fan speeds as indicated in the following table. (see also MCBA parameters for the specialist).

Propane conversion Prestige Solo 50 - 75



Propane conversion Prestige Solo 120



	Orifice		
	Prestige Solo 50	Prestige Solo 75	Prestige Solo 120
G20	—	—	8,6
G25	—	—	—
G30	6,0	6,8	6,7
G31	6,0	6,8	6,7

Parameter with front panel closed		Prestige Solo 50		Prestige Solo 75		Prestige Solo 120	
		G20 - G25	G30 - G31	G20 - G25	G30 - G31	G20 - G25	G30 - G31
CO ₂ [max power]	% CO ₂	9,4	10,8	9,4	10,8	9,0	10,3
Maximum fan speed	rpm	5600	5300	6500	6500	6000	5600
CO ₂ [min power]	% CO ₂	9,3	10,4	9,3	10,4	8,5 - 9,5	10 - 10,5
Minimum fan speed	rpm	1700	1700	1700	1700	1500	2000
Parameter with front panel open							
CO ₂ [max power]	% CO ₂	9,2	10,5	9,2	10,5	8,8	10,1
CO ₂ [min power]	% CO ₂	9,1	10,1	9,1	10,1	8,3 - 9,2	10 - 10,5

INSTALLATION

CONFIGURATION 1:
Installing a heating circuit and, optionally, a domestic hot water tank with regulation by a room thermostat and an outdoor sensor.

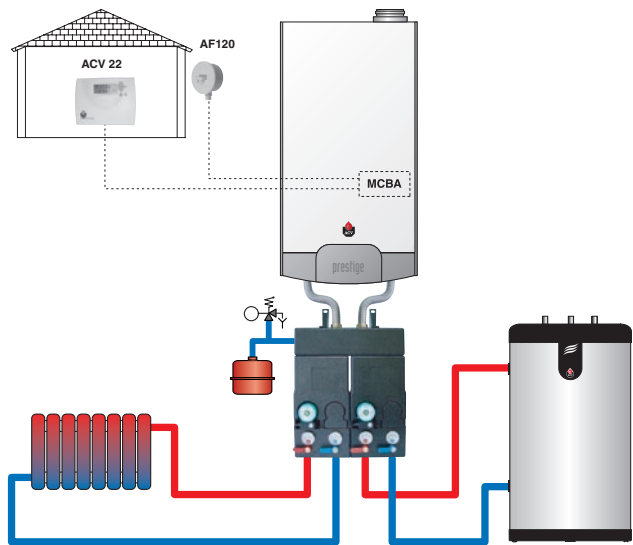
Block diagram

The heating system (radiators or floor) is controlled by an On/Off room thermostat.
The domestic hot water tank is controlled by an intermediate NTC sensor. The domestic hot water priority is always active.









In this configuration, the boiler constantly adapts its operation to the outdoor temperature, if an outside temperature sensor is connected.

The circulator is triggered as soon as the room thermostat generates a heat demand.

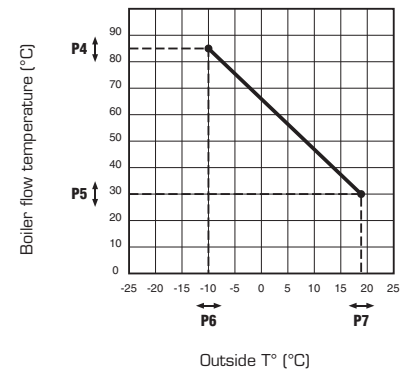
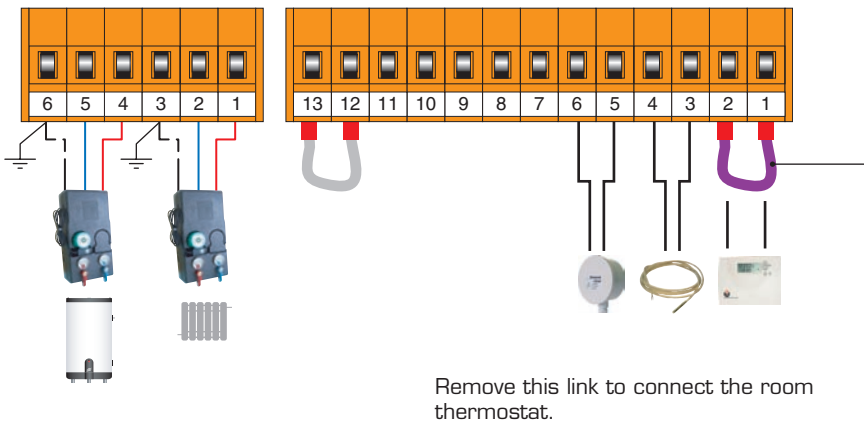
- Advantages for the user:
- Comfort
 - Maximum output
 - Simplicity of the system



Equipment required as options

Item	Code	Description		
	10800018	Room thermostat ACV 22	1x	1x
	10510100	Outside temperature sensor, 12kΩ — AF120	1x	1x
	10800104	2 circuit manifold DN32: With built-in wall mounts.	—	1x
	10800107	High temperature kit DN32: Includes: a circulator, two isolation valves, the check valve and two thermometers.	1x	2x
	10800142	Manifold connection kit DN32 Includes: two stainless steel hoses Ø 6/4" with two reducers Ø 5/4"	1x	1x
	5476G003	Sensor NTC 12kΩ: Monitors the external domestic hot water tank.	—	1x

INSTALLATION



initial			Description
1.60	1.67	1.80	Temperature set point for domestic hot water (adjustable from 60 to 80°C).
2.00	2.00	2.01	00: Domestic hot water "OFF" 01: Domestic hot water "ON"
3.01	3.01	3.01	00: Heating mode "OFF" 01: Heating mode "ON"
4.85	4.85	4.85	Temperature set point for the water in the heating circuit (adjustable from 30 to 90°C).
P.05 1.30	P.05 1.30	P.05 1.30	Minimum temperature for the water in the heating circuit (adjustable from 15 to 60°C).
P.06 -10	P.06 -10	P.06 -10	Minimum outside [T4] temperature (adjustable from -20 to 10°C).
P.07 18	P.07 18	P.07 18	Maximum outside [T4] temperature (adjustable from 15 to 25°C).
P.12 10	P.12 10	P.12 10	The central heating system will only decrease the temperature at night (°C) if a clock is connected between 1 and 2 and P34 is set to 01.
P.33 20	P.33 20	P.33 20	Increase of the primary temperature set point to generate hot water
P.34 00	P.34 00	P.34 00	00: Use of an outside temperature sensor and of a room thermostat 01: Use of an outdoor sensor and a clock; in this case the circulator runs continuously.
P.35 13	P.35 13	P.35 12	12: if there is a tank with an NTC sensor 13: if there is a tank with a thermostat

INSTALLATION

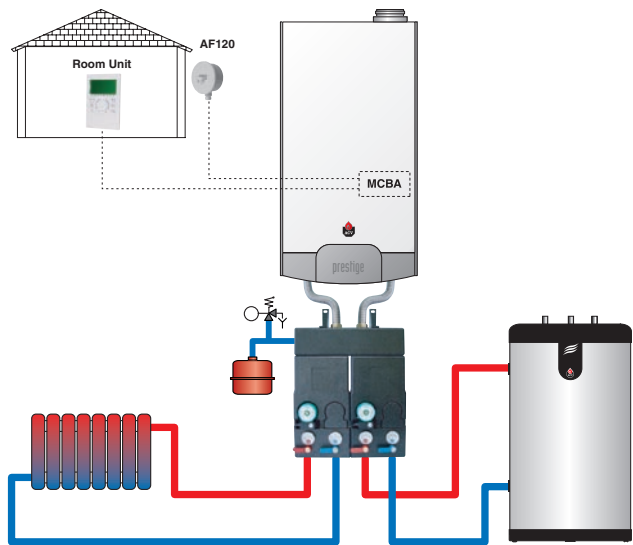
CONFIGURATION 2:

Installing a heating circuit and, optionally, a domestic hot water tank with regulation by a Room Unit and an outdoor sensor.










Block diagram

The Room Unit controls the heating and the domestic hot water tank. This unit combines the functions of remote control of the boiler and of the heating circuits and the room thermometer. The Room Unit displays all the information on the status of the system, so that you can choose from various heating functions. The unit enables up to 3 weekly schedule programs both for heating and for domestic hot water.

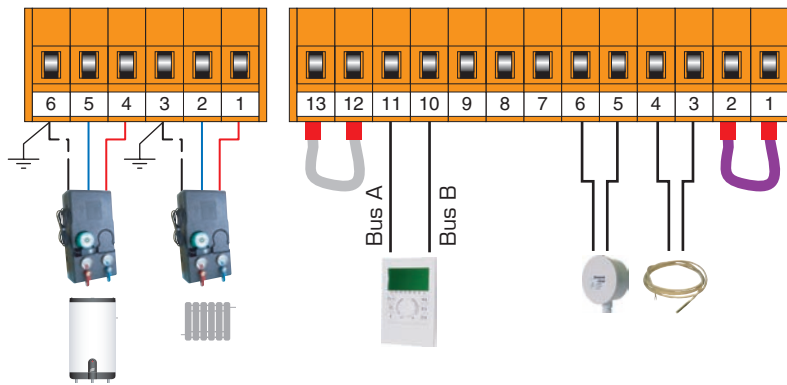
In this configuration, the boiler continuously adapts its operation to the outside temperature while taking the indoor temperature into account.



Equipment required as options

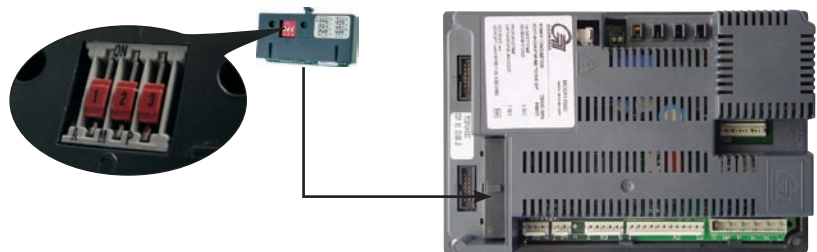
Item	Code	Description		
	10800034	Room Unit RSC Delivered with outdoor sensor	1x	1x
	10800036	Clip-in interface RMCIEBV3 Enables communication between the MCBA and the Room Unit RSC.	1x	1x
	10510100	Outside temperature sensor, 12kΩ — AF120	1x	1x
	10800104	2 circuit manifold DN32: With built-in wall mounts.	—	1x
	10800107	High temperature kit DN32: Includes: a circulator, two isolation valves, the check valve and two thermometers.	1x	2x
	10800142	Manifold connection kit DN32 Includes: two stainless steel hoses Ø 6/4" with two reducers Ø 5/4"	1x	1x
	5476G003	Sensor NTC 12kΩ: Monitors the external domestic hot water tank.	—	1x

INSTALLATION



10800036: Address of the interface "0"

	= 0		= 4
	= 1		= 5
	= 2		= 6
	= 3		= 7



initial			Description
			Maximum temperature set point for the domestic hot water. The actual temperature set point is given from the Room Unit.
			00: Domestic hot water "OFF" 01: Domestic hot water "ON"
			00: Heating mode "OFF" 01: Heating mode "ON"
			Temperature set point for the water in the heating circuit (adjustable from 30 to 90°C).
 	 	 	Minimum temperature for the water in the heating circuit (adjustable from 15 to 60°C).
 	 	 	Increase of the primary temperature set point to generate hot water
 	 	 	12: if there is a tank with an NTC sensor 13: if there is a tank with a thermostat

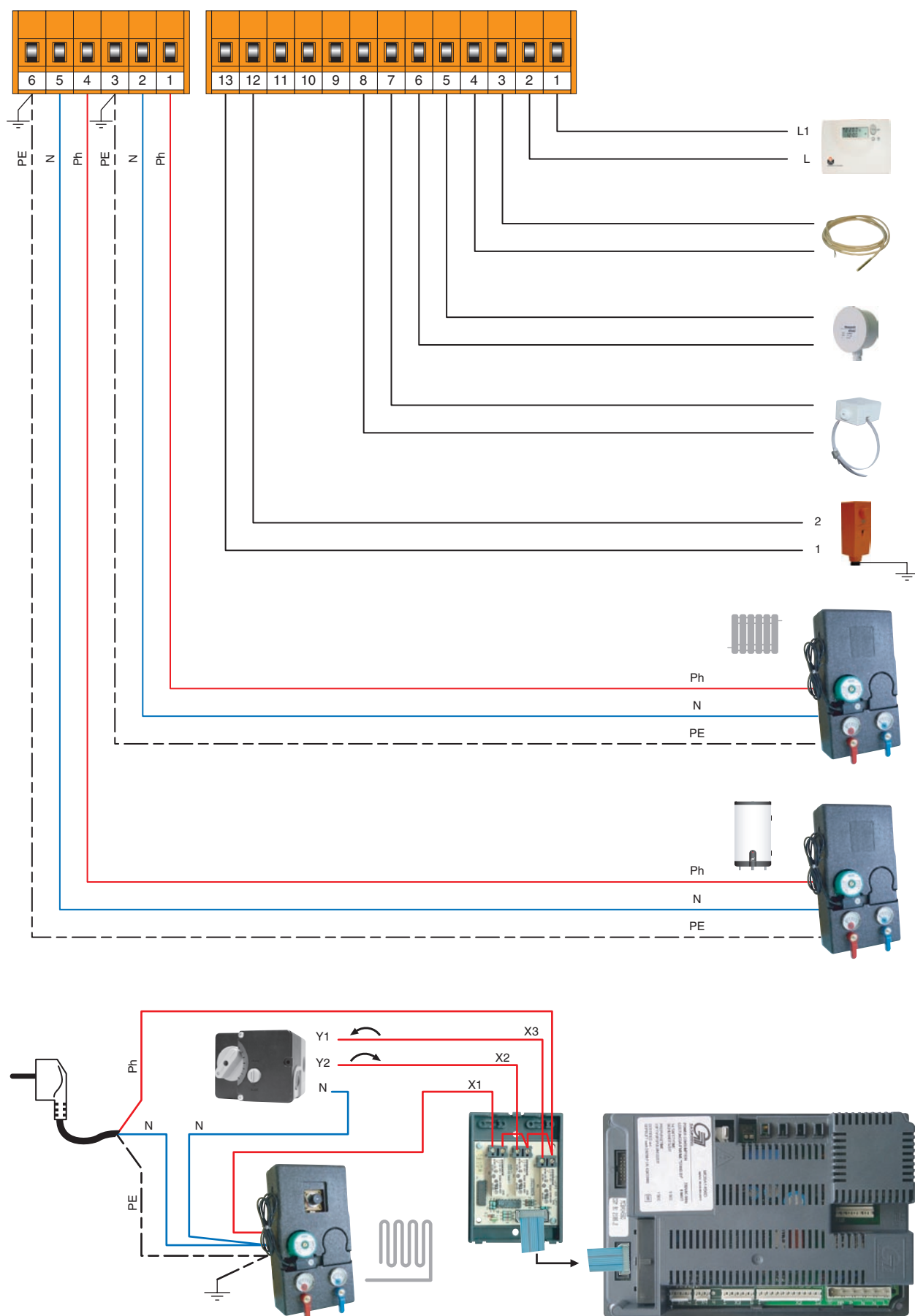
INSTALLATION

Equipment required as options

Item	Code	Description		
	10800018	Room thermostat ACV 22	1x	1x
	10800095	Module AM3-11: Manages the second heating circuit - communicates directly with the MCBA	1x	1x
	537D3040	Contact sensor, 12kΩ For outlet on controlled circuit.	1x	1x
	10510900	Contact thermostat RAM 5109: Obligatory to protect all floor heating circuits.	1x	1x
	10510100	Outside temperature sensor, 12kΩ — AF120	1x	1x
	10800104	2 circuit manifold DN32: With built-in wall mounts.	1x	—
	10800105	3 circuit manifold DN32: With built-in wall mounts.	—	1x
	10800107	High temperature kit DN32: Includes: a circulator, two isolation valves, the check valve and two thermometers.	1x	2x
	10800106	Low temperature kit DN32: Includes: a circulator, two isolation valves, the check valve, two thermometers, a 3-way valve with built-in bypass.	1x	1x
	10800142	Manifold connection kit DN32 Includes: two stainless steel hoses Ø 6/4" with two reducers Ø 5/4"	1x	1x
	10800019	Servomotor SQK 349: Motor for valve provided in the low-temperature kit (opening time: 150 seconds)	1x	1x
	5476G003	Sensor NTC 12kΩ: Monitors the external domestic hot water tank.	—	1x

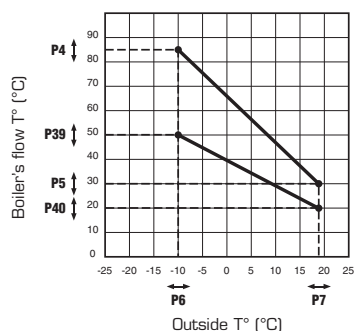
INSTALLATION

Block diagram for wiring in compliance with applicable standards.



INSTALLATION

PARA initial	PARA	PARA	Description
1.60	1.67	1.80	Temperature set point for domestic hot water (adjustable from 60 to 80°C).
2.00	2.00	2.01	00 : Domestic hot water "OFF" 01 : Domestic hot water "ON"
3.01	3.01	3.01	00 : Heating mode "OFF" 01 : Heating mode "ON"
4.85	4.85	4.85	Temperature set point for the water in the heating circuit (adjustable from 30 to 90°C).
P.05 8.30	P.05 8.30	P.05 8.30	Minimum temperature for the water in the heating circuit (adjustable from 15 to 60°C).
P.06 -10	P.06 -10	P.06 -10	Minimum outside [T4] temperature (adjustable from -20 to 10°C).
P.07 18	P.07 18	P.07 18	Maximum outside [T4] temperature (adjustable from 15 to 25°C).
P.33 8.20	P.33 8.20	P.33 8.20	Increase of the primary temperature set point to generate hot water
P.34 8.00	P.34 8.20	P.34 8.20	<ul style="list-style-type: none"> • High T° circuit: operates according to outside temperatures. The circulator is controlled by the room thermostat. • Low T° circuit: operates according to outside temperatures. The circulator runs continuously. • Low T° circuit: during generation of domestic hot water, set P34 to 60.
P.34 8.00	P.34 8.21	P.34 8.21	<ul style="list-style-type: none"> • High and low T° circuits: operate according to outside temperatures. Both circulators run continuously. Night time reduction on the high T° circuit. • Low T° circuit: active during generation of domestic hot water, set P34 to 61.
P.35 8.13	P.35 8.13	P.35 8.12	12 : if there is a tank with an NTC sensor 13 : if there is a tank with a thermostat
P.39 8.50	P.39 8.50	P.39 8.50	Maximum temperature of the second heating circuit
P.40 8.20	P.40 8.20	P.40 8.20	Minimum temperature of the second heating circuit



CONFIGURATION 4:

Installing two heating circuits and, optionally, a domestic hot water tank with regulation by a Room Unit and a ZMC-1 module.

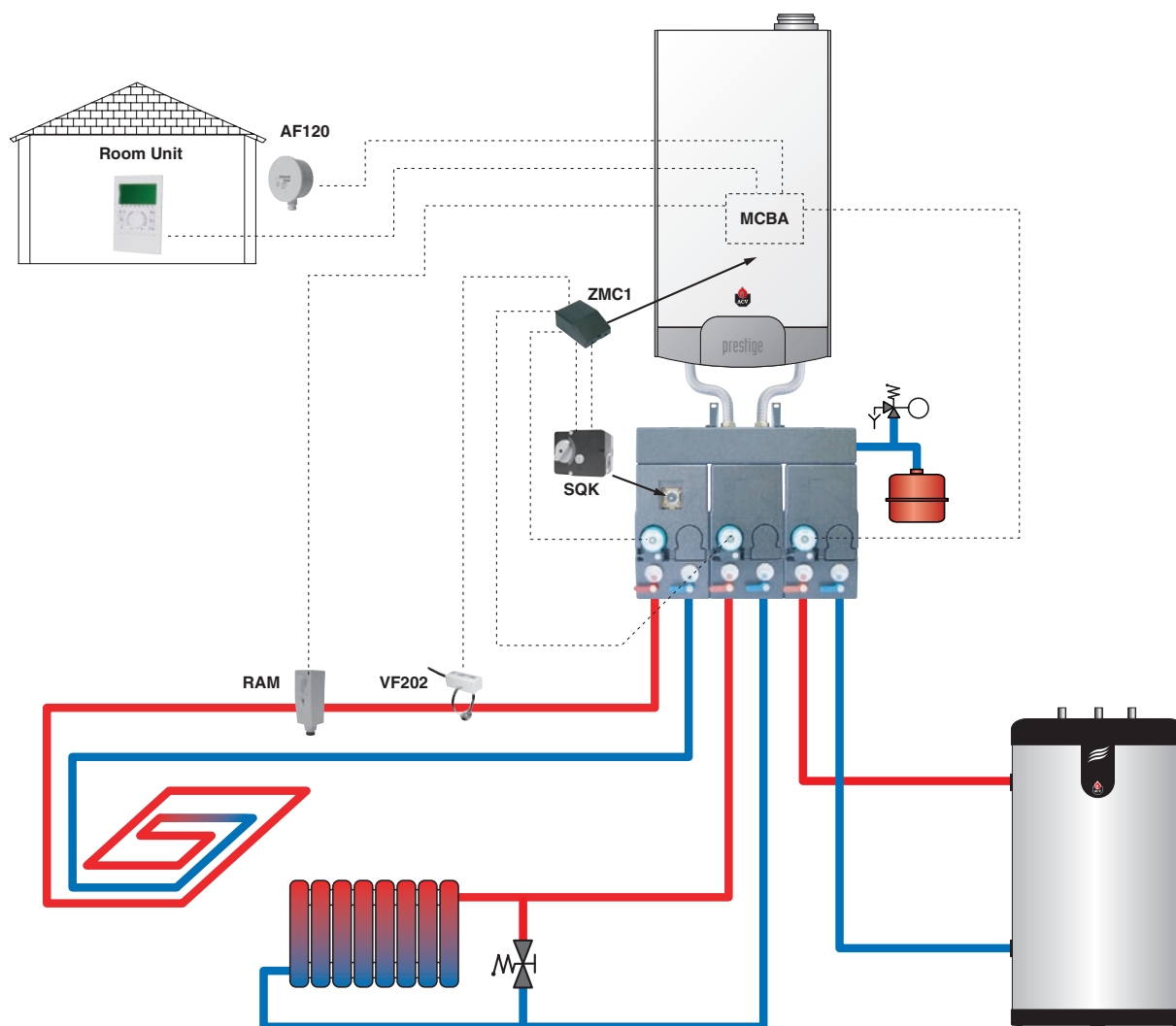
Block diagram

This is a simple way of controlling two heating circuits (radiators or floor heating) while benefiting from the Room Unit, which offers remote management of both circuits.

These circuits may be set differently according to weather conditions.

The Room Unit displays all the information on the status of the system, so that you can choose from various heating functions. The unit enables up to 3 weekly schedule programs both for heating and for domestic hot water. Furthermore, when combined with the module ZMC1, the Room Unit enables you to program several operating modes for the domestic hot water priority: parallel, strict priority, restricted priority and priority according to outside temperature.

In this configuration, the boiler continuously adapts its operation to the outside temperature while taking the indoor temperature into account.



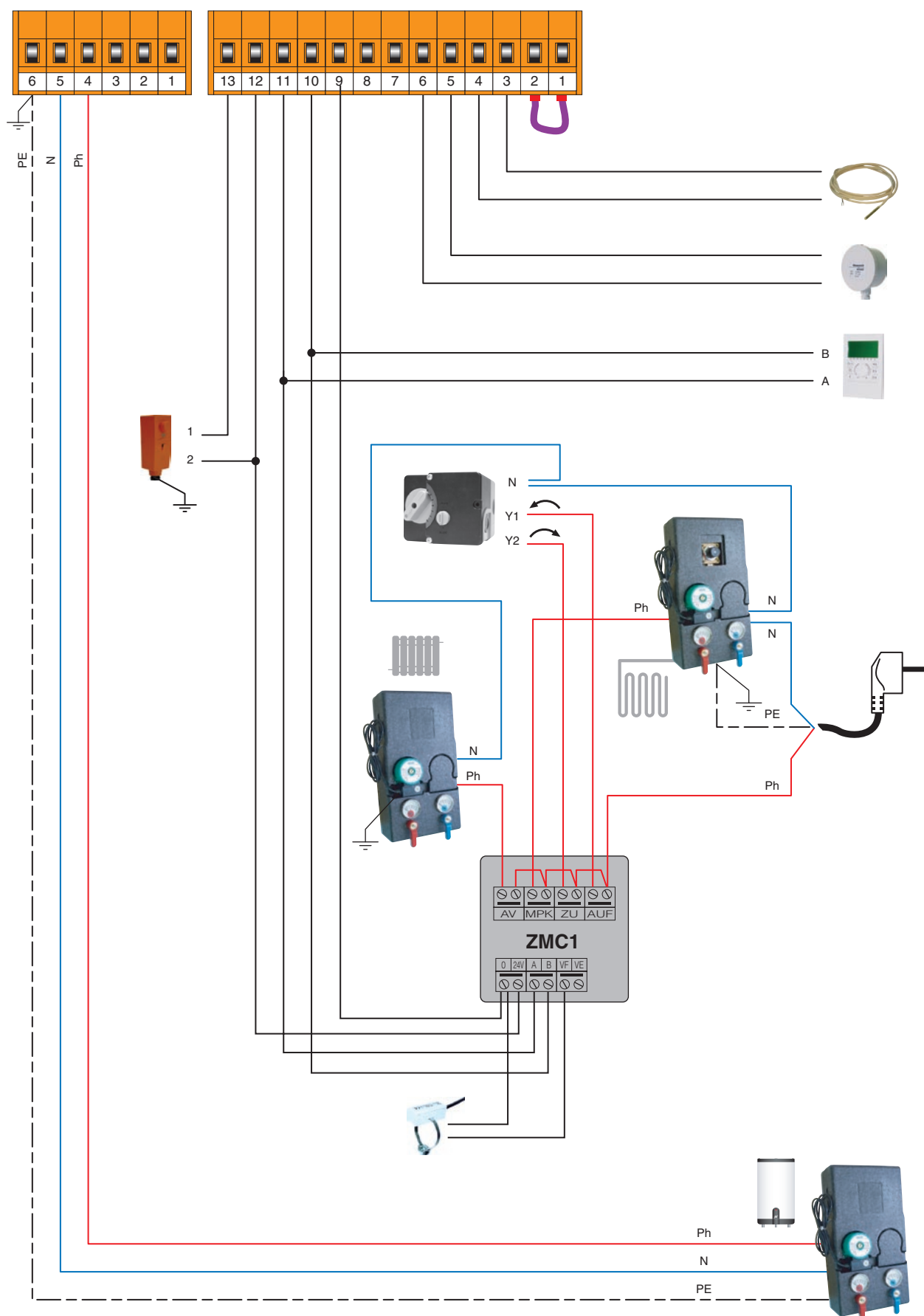
INSTALLATION

Equipment required as options































Item	Code	Description		
	10800034	Room Unit RSC Delivered with outdoor sensor	1x	1x
	10800119	ZMC-1 module (kit): Manages the second heating circuit - alarm contact - only functions in conjunction with the Room Unit RSC.	1x	1x
	10800036	Clip-in interface RMCIEBV3 Enables communication between the MCBA and the Room Unit RSC.	1x	1x
	10800045	Contact sensor, 2kΩ — VF202: For outlet on controlled circuit.	1x	1x
	10510900	Contact thermostat RAM 5109: Obligatory to protect all floor heating circuits.	1x	1x
	10510100	Outside temperature sensor, 12kΩ — AF120	1x	1x
	10800104	2 circuit manifold DN32: With built-in wall mounts.	1x	—
	10800105	3 circuit manifold DN32: With built-in wall mounts.	—	1x
	10800107	High temperature kit DN32: Includes: a circulator, two isolation valves, the check valve and two thermometers.	1x	2x
	10800106	Low temperature kit DN32: Includes: a circulator, two isolation valves, the check valve, two thermometers, a 3-way valve with built-in bypass.	1x	1x
	10800142	Manifold connection kit DN32 Includes: two stainless steel hoses Ø 6/4" with two reducers Ø 5/4"	1x	1x
	10800019	Servomotor SQK 349: Motor for valve provided in the low-temperature kit (opening time: 150 seconds)	1x	1x
	5476G003	Sensor NTC 12kΩ: Monitors the external domestic hot water tank.	—	1x

INSTALLATION

Block diagram for wiring in compliance with applicable standards.



INSTALLATION

initial			Description
			Temperature set point for domestic hot water (adjustable from 60 to 80°C).
			00 : Domestic hot water "OFF" 01 : Domestic hot water "ON"
			00 : Heating mode "OFF" 01 : Heating mode "ON"
			Temperature set point for the water in the heating circuit (adjustable from 30 to 90°C).
 	 	 	Minimum temperature for the water in the heating circuit (adjustable from 15 to 60°C).
 	 	 	Increase of the primary temperature set point to generate hot water
 	 	 	12 : if there is a tank with an NTC sensor 13 : if there is a tank with a thermostat



Hydraulic

Parameter 6 = 23

















Hot water

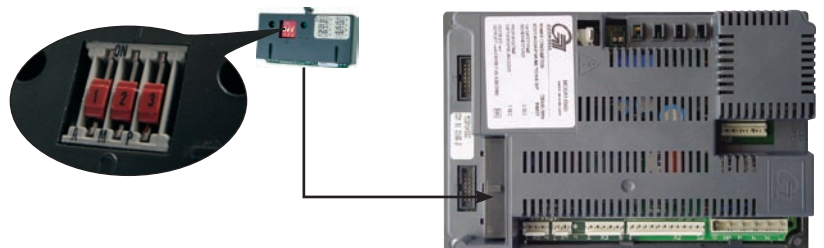
Parameter 7 = 1: parallel

Parameter 7 = 2: hot water priority

Parameter 7 = 3 : restricted hot water priority

10800036: Address of the interface "0"

		= 0			= 4
		= 1			= 5
		= 2			= 6
		= 3			= 7



COMMISSIONING THE SYSTEM



- If a hot water tank is installed, fill the tank slowly and purge it by opening a hot water outlet. Purge all the outlets and make sure there are no leaks in the domestic hot water system.
 - Fill the whole installation to at least 1.5 bar using the system's filling kit. Fill the system slowly and bleed it using the manual air vent of the flow pipe. Check for leaks in the central heating system.
 - Purge the circulator(s).
 - Open the gas valve, purge the pipe and check for leaks in the system.
 - Check that the condensate trap is full.
 - Switch on the appliance at the isolator. Where appropriate, put the room thermostat at its highest setting. The boiler starts up. Check the gas pressure and allow the boiler to heat up for a few minutes.
- Set the boiler to high power mode and check the CO₂. (see table of technical characteristics). Next, set the boiler to minimum power mode and check the CO₂ (see table of technical characteristics).
- Set the central heating and hot water temperatures according to the values indicated in the instructions for use.
 - Bleed the central heating system again, and, if needed, fill to reach the desired pressure.
 - Make sure that the heating system is properly balanced, and, if needed, adjust the valves to prevent certain circuits or radiators from getting a flow rate that is far above or below the set rate.

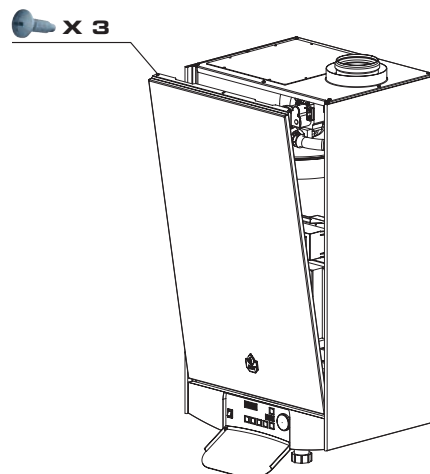
CHECKING THE SETTINGS

- Check if the parameters are set to meet the user's requirements.
 - Checking the boiler's settings: only an ACV-trained installer or the ACV maintenance department can perform this task.
 - Set the appliance to maximum power mode by pressing simultaneously the **Mode** and "+" keys.
 - Check the dynamic gas pressure at the gas valve (see diagram below, ref.1). This must be at least 18 mbar.
- Let the appliance heat for a few minutes until it reaches at least 60 °C. Check the CO₂ setting of the appliance using a measuring instrument. The optimal value is indicated in the table of technical characteristics. To increase the CO₂ value, turn the venturi screw counter-clockwise, and turn it clockwise to decrease this value (see diagram below, ref. 2).
- Next, set the appliance to minimum power mode by pressing simultaneously on the **Mode** and "-" keys. Let the appliance stabilize for a few minutes. Check the CO₂ value. It should be either equal to the value at full power or a maximum of 0.5 % less than it. If you observe a significant deviation, please contact ACV's maintenance department.

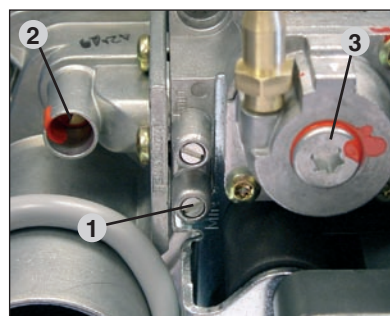


Special rule in Belgium: for the Prestige Solo 50 - 75

The CO₂, gas flow, air flow and air/gas supply parameters are factory preset and cannot be changed in Belgium.

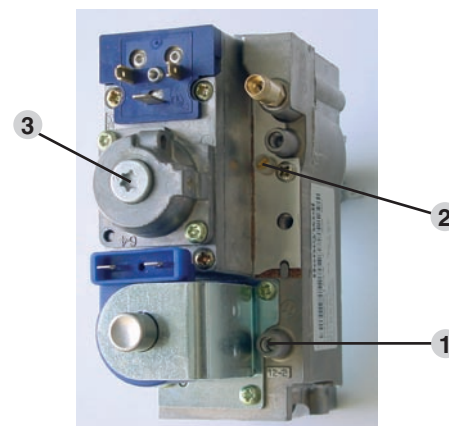


PRESTIGE SOLO 50 – 75



The **OFFSET** setting (3) of the gas valve is set at the factory and sealed. It cannot be modified!!!

PRESTIGE SOLO 120



Adjust the CO₂ setting by turning the throttle's adjusting screw (2). Depending on the position of the throttle in the valve, turn the adjusting screw either clockwise or counter-clockwise to increase the CO₂. The offset (3) is factory-adjusted and must not be modified on-site.

BOILER MAINTENANCE PRESTIGE SOLO 50 - 75



ACV recommends that you have your boiler inspected, and cleaned, if needed, at least once a year.

Isolate the appliance before undertaking any work on it, even if you are simply taking measurements and making adjustments.

- Check that the condensate trap is not clogged, fill it as required and check for leaks.
- Check that the safety valves are in good working order.
- Bleed the whole system and refill the appliance if needed until it reaches 1.5 bar.

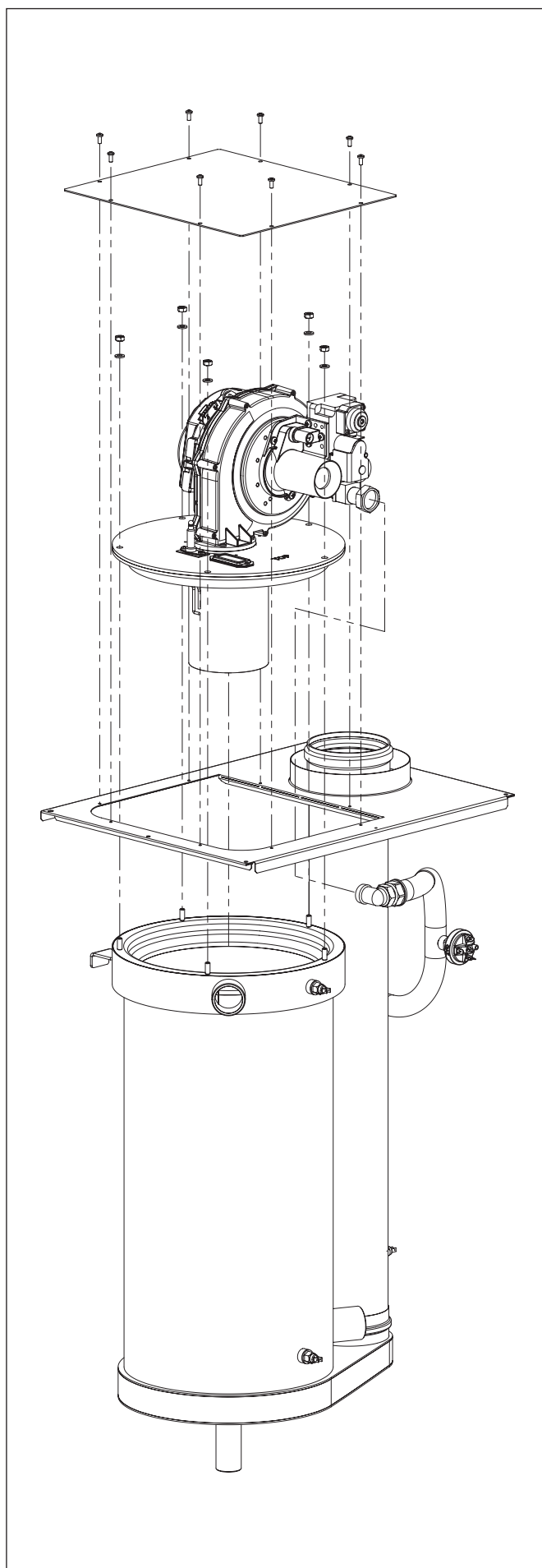


In the case of repeated fills, contact your installer.

- Check the boiler's pressure in maximum power mode. If this value is very different from the original setting, this deviation may indicate an obstruction in the air intake ducts or flue gas exhaust pipes, or that the exchanger is clogged.

DISASSEMBLING THE BURNER PRESTIGE SOLO 50 - 75

- Close the gas supply valve.
- Isolate the electric power supply
- Open the front panel of the boiler.
- Disconnect the fan plugs (PWM & 230V), the ignition cable, the gas valve control and the ignition electrode earth.
- For easier access, you can also remove the boiler's top panel.
- Unscrew the three-piece connection of the gas pipe.
- Using a ratchet wrench, unscrew the burner's 5 nuts.
- Lift the burner, the fan and the gas valve out in one piece and remove them from the exchanger. Take care not to damage the burner's insulation, which is inside of the exchanger.
- Check the condition of the insulation and the seals and replace them if needed, then put the burner back, following the above procedure in reverse order.



BOILER MAINTENANCE PRESTIGE SOLO 120



ACV recommends that you have your boiler inspected, and cleaned, if needed, at least once a year.

Isolate the appliance before undertaking any work on it, even if you are simply taking measurements and making adjustments.

- Check that the condensate trap is not clogged, fill it as required and check for leaks.
- Check that the safety valves are in good working order.
- Bleed the whole system and refill the appliance if needed until it reaches 1.5 bar.

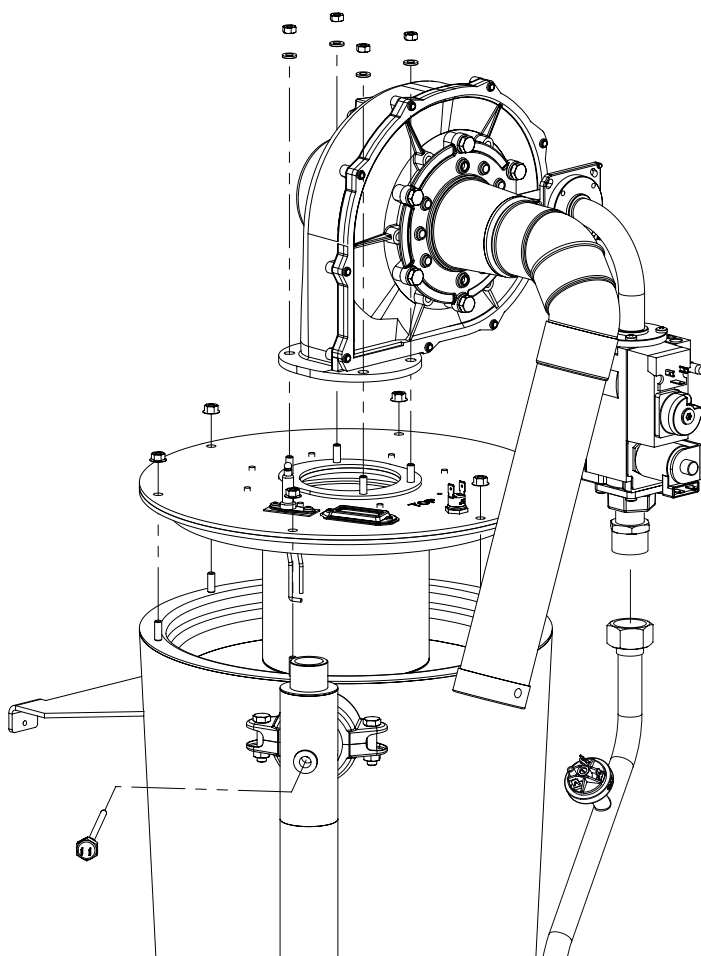


In the case of repeated fills, contact your installer. Why do we say this here?

- Check the boiler's pressure in maximum power mode.
If this value is very different from the original setting, this deviation may indicate an obstruction in the air intake ducts or flue gas exhaust pipes, or that the exchanger is clogged.

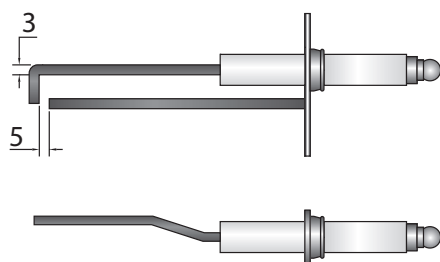
DISASSEMBLING THE BURNER PRESTIGE SOLO 120

- Close the gas supply valve.
- Isolate the electric power supply.
- Open the front panel of the boiler.
- Disconnect the fan plugs (PWM & 230V), the ignition cable, the gas valve control and the ignition electrode earth.
- Unscrew the three-piece connection of the gas pipe.
- Unscrew the fan's 4 nuts and remove the fan, venturi and gas valve assembly.
- Unscrew the 6 nuts of the chamber plate, using a ratchet wrench.
- Lift up the chamber plate with the burner manifold, taking care not to damage the insulation of the burner, which is inside of the exchanger.
- Check the condition of the insulation and the seals and replace them if needed, then put the burner back, following the above procedure in reverse order.



DISASSEMBLING AND INSPECTING THE ELECTRODE

- Dismantle the ignition cable.
- Unscrew the two retaining screws.
- Disconnect the earth connection from the electrode, but make sure that the lock washer is fastened between the earth cable and the electrode during assembly.
- Check the seals and replace them if needed, then reassemble the electrode by following the above procedure in reverse order.



DISASSEMBLING THE EXCHANGER

- Use the system's drain valve to drain the water from the central heating system.
- Let the appliance empty completely.
- Dismantle the electric connections located downstream from the burner, as well as the NTCs.
- Dismantle the exchanger's flow and return pipes. Use caution while disassembling: residual water may escape from the exchanger.
- Dismantle the condensate trap connection.
- Lift up the exchanger in a single piece, standing upright. The exchanger detaches from its hook and is completely released.
- Check the condition of the seals and replace them if necessary, then reassemble the exchanger, following the same procedure in reverse order.

CLEANING THE EXCHANGER

- Disassemble the burner.
- Remove the burner's insulation.
- Use a vacuum cleaner to clean out the chamber.
- Disconnect the chimney from the exchanger.
- Check if the condensate collector is dirty and clean it if necessary.
- Check the burner's insulation and seal. Replace them if needed.
- Check the electrode and replace it if needed.
- Reassemble the burner and check for any leaks.
- Power the appliance on again. Set the appliance to maximum Power mode and check for leaks.
- Check the gas pressure and the CO₂ setting as described in the previous section.

RESISTANCE OF THE TEMPERATURE SENSORS

T° [°C]	R	T° [°C]	R	T° [°C]	R
- 20	98200	25	12000	70	2340
- 15	75900	30	9800	75	1940
- 10	58800	35	8050	80	1710
- 5	45900	40	6650	85	1470
0	36100	45	5520	90	1260
5	28600	50	4610	95	1100
10	22800	55	3860	100	950
15	18300	60	3250		
20	14700	65	2750		

MCBA PARAMETERS FOR THE SPECIALIST

STANDBY MODE

Standby Mode

5t64

When the boiler is powered on, it starts up in Stand-by mode, as shown in the figure above.

This is the standard mode of the MCBA. The MCBA automatically returns to this mode after 20 minutes if no key is pressed on the display. The modified parameters then become active.

The first digit indicates the boiler's current status, depending on the situation of the boiler and the burner. The last two digits indicate the temperature.

Once the cause of the lockout has been resolved, the burner starts up automatically after a maximum of 150 seconds.

Status	Boiler function
0 888	Standby, no heat demand
1 888	Fan pre-purge / post-purge
2 888	Ignition
3 888	Operation of the boiler's burner for heating
4 888	Operation of the boiler's burner for domestic hot water
5 888	Waiting for signal from the air pressure switch or to obtain number of start revolutions.
6 888	The burner turns off once the set value has been reached. There is a heat demand nonetheless.
7 888	Circulator time delay after the heating demand.
8 888	Circulator time delay after the hot water demand.
9 888	Blocked burner: <ul style="list-style-type: none"> • 6 18 : T1 > 95°C • 6 19 : T2 > 95°C • 6 24 : T2 - T1 > 10°C after 90 seconds • 6 25 : dT1/dt > maximum gradient T1 • 6 26 : low water or gas pressure switch not closed • 6 28 : no tachometer signal • 6 29 : erroneous tachometer signal • 6 30 : T1 - T2 > Δ T max. • 6 33 : Short circuit NTC 3 • 6 35 : Short circuit NTC 5 • 6 38 : interruption NTC 3 • 6 40 : interruption NTC 5 • 6 52 : T5 > T5 max • 6 65 : waiting for fan to start

Status	Boiler function
A 888	Internal inspection — Three-way valve
C 888	Boiler's burner in temperature maintenance function
H 888	Test function: max central heating power
L 888	Test function : min. central heating power
t 888	Test function: boiler with fixed number of revolutions

If the burner is blocked for one of the above reasons, the screen displays, in turn, 9 followed by the temperature (last two digits) and b with the error code.

MCBA PARAMETERS FOR THE SPECIALIST

SETTING THE PARAMETERS

Parameter mode


PARA





To access Parameter mode when the installation is in Standby mode, press **"MODE"** once.

You can scroll through the list of parameters by pressing **"STEP"** each time. To modify the value of the parameter, use the "+" or "-" keys.

Next, press **"STORE"** to record the modified value. The screen will flash once to confirm that the value has been stored.

To activate the modified parameters, press **"MODE"** again (this will switch you to Info mode). However, if you do not press any key, the system returns to Standby mode after 20 minutes and activates the changes.

Key	Display
	PARA
MODE	

Key	Display	Description of the parameters	Factory setting		
			Prestige 50	Prestige 75	Prestige 120
 STEP	1867	Setting the hot water temperature	1860	1860	1860
 STEP	2801	Hot water generation 00 = Off 01 = On 02 = Off + pump active constantly 03 = On + pump active constantly	2800	2800	2800
 STEP	3801	Switching heating On/Off 00 = Off 01 = On 02 = Off + pump active constantly 03 = On + pump active constantly	3801	3801	3801
 STEP	4870	Maximum temperature in central heating mode	4885	4885	4885



MCBA PARAMETERS FOR THE SPECIALIST

INFORMATION ON THE INSTALLATION











Info mode

INFO

To switch from **Standby** mode to **Info** mode, press twice on "**MODE**"

Key	Display
	PARA
MODE	
	INFO
MODE	

Press the "**STEP**" key until you see the desired information. The dot located behind the first position flashes to indicate that the boiler is in **Info** mode.

Key	Display	Description of the parameters
	18.60	Flow temperature T1 in °C
STEP		
	28.50	Return temperature T2 in °C
STEP		
	38.65	Domestic hot water temperature T3 in °C
STEP		
	48.03	Outside temperature T4 in °C
STEP		
	58.55	Flue gas temperature T5 in °C
STEP		
	68.45	Flow temperature calculated in °C
STEP		
	78.00	Rate of increase of flow temperature in °C/s
STEP		
	88.00	Rate of increase of return temperature in °C/s
STEP		
	98.00	Rate of increase of hot water temperature in °C/s
STEP		
	A8.34	Flow temperature of 2nd central heating circuit
STEP		

ENTERING THE CODE

Code mode

CODE

You can access the following parameters by entering the service code:

- Parameters 5 through 42
- Communication mode
- Fan speed mode
- ERROR mode

Stby

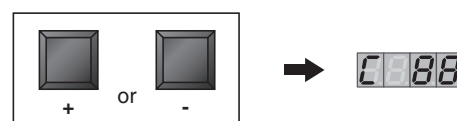
To access Code mode, press simultaneously on the **MODE** and **STEP** keys. (only in Standby mode!)



Press **STEP** once and the screen indicates "C" in the first position, then random characters in the third and fourth positions.



Press "+" or "-" to change the code.



Press **STORE** and the screen flashes briefly to indicate that the code has been accepted.



Press **MODE** until the desired mode appears.



Only ACV approved installers know the access code.

For more information, please contact our after-sales service.

MCBA PARAMETERS FOR THE SPECIALIST

SETTING THE PARAMETERS: only accessible with the code

Factory setting

only accessible with the code

Key	Display	Description of the parameters	Prestige 50	Prestige 75	Prestige 120	
 STEP	P.05	Minimum central heating temperature using outdoor sensor	30	30	30	
 STEP	P.06	Minimum outdoor temperature [setting the heating curve]	-10	-10	-10	
 STEP	P.07	Maximum outdoor temperature [setting the heating curve]	18	18	18	
 STEP	P.08	Freeze protection temperature	01	01	01	
 STEP	P.09	Correction for outside temperature	00	00	00	
 STEP	P.10	T lock: locks the heat demand, if the heating set-point T° is lower than the parameter value. 0 = Disabled	00	00	00	
 STEP	P.11	Booster 00 = Off - [minute]	10	10	10	
 STEP	P.12	Night time central heating reduction (°C)	10	10	10	
 STEP	P.13	Max. fan speed in central heating mode [rpm x 100]	Natural gas	56	65	62
		Propane	53	65	59	
 STEP	P.14	Max. fan speed in central heating mode [rpm]	Natural gas	00	00	00
		Propane	00	00	00	
 STEP	P.15	Max fan speed in domestic hot water mode (rpm x 100)	Natural gas	56	65	62
		Propane	53	65	59	
 STEP	P.16	Max fan speed in domestic hot water mode (rpm)	Natural gas	00	00	00
		Propane	00	00	00	
 STEP	P.17	Min. fan speed [rpm x 100]	Natural gas	17	17	15
		Propane	17	17	20	

MCBA PARAMETERS FOR THE SPECIALIST

Key	Display	Description of the parameters	Factory setting		
			Prestige 50	Prestige 75	Prestige 120
 STEP		Min. fan speed [rpm]	Natural gas 	Propane 	
		Propane 			
 STEP		Max fan speed at ignition [rpm x 100]	Natural gas 	Propane 	
		Propane 			
 STEP		Central heating pump time delay 0 = 10 sec. [min.]			
 STEP		Domestic hot water pump time delay [sec. x 10.2]			
 STEP		Burner interlock hysteresis (central heating)			
 STEP		Burner trigger hysteresis (central heating)			
 STEP		Burner interlock hysteresis (domestic hot water)			
 STEP		Burner trigger hysteresis (domestic hot water)			
 STEP		Burner detection hysteresis, domestic hot water mode [interlock]			
 STEP		Burner detection hysteresis, domestic hot water mode [trigger]			
 STEP		Central heating block time (sec x 10.2)			
 STEP		Domestic hot water block time (sec x 10.2)			
 STEP		Domestic hot water ➡ Central heating block time [sec. x 10.2]			



MCBA PARAMETERS FOR THE SPECIALIST





Key	Display	Description of the parameters	Factory setting		
			Prestige 50	Prestige 75	Prestige 120
 STEP	P.31	Difference T1 - T2 for modulation	30	30	30
 STEP	P.32	BUS address -1 = disabled	-01	-01	-01
 STEP	P.33	Increase of the primary temperature set point to generate hot water	20	20	20
 STEP	P.34	1st position: 2nd central heating circuit: 0 = disabled 1 = enabled [slave] 2 = enabled [master] 2nd position: the heat demand comes from: 0 = room thermostat 1 = outdoor sensor	00	00	00
 STEP	P.35	1st position: domestic hot water circulator [1] or dividing valve [2] 2nd position: Tank with NTC 3 sensor [2] or tank with thermostat [3]	13	13	13
 STEP	P.36	Manual fan speed	-01	-01	-01
 STEP	P.37	1st position: pump speed during operation 2nd position: pump speed during time delay	11	11	11
 STEP	P.38	Holding temperature	00	00	00
 STEP	P.39	Maximum flow temperature of the 2nd circuit	50	50	50
 STEP	P.40	Minimum flow temperature of the 2nd circuit	20	20	20
 STEP	P.41	Hysteresis of the 2nd circuit temperature	03	03	03
 STEP	P.42	1st position: special pump [0 = disabled] 2nd position: minimum disable cycle [0 = disabled]	00	00	00

MCBA PARAMETERS FOR THE SPECIALIST





COMMUNICATION MODE [with code]

This mode displays communication between the boiler and the control module, the optional interface kit or the optional programmable room thermostat

Key	Display
	
MODE	



Key	Display	Description of the parameters
		No communication
		Communication only between the boiler module and the optional control module.
STEP		Communication between all the connected appliances.













FAN mode [with code]

Key	Display	Description of the parameters
		Fan speed
MODE		
		The fan's current speed is 5,500 rpm.
STEP		

ERROR MODE [avec code]

ERROR indicates the last error, as well as the status of the boiler and the current values of this error.

Key	Display
	
MODE	

Key	Display	Description of the parameters
		Code of last error
STEP		
		Status of the boiler at the time of the error
STEP		
		Flow temperature T1 at the time of the error
STEP		
		Return temperature T2 at the time of the error
STEP		
		Hot water temperature T3 at the time of the error
STEP		
		Outdoor temperature T4 at the time of the error
STEP		

LIST OF ERROR CODES + SOLUTIONS [in ERROR mode]

If a fault occurs during operation, the system locks down and the screen starts flashing.
The first character is an "E" and the following two indicate the code of this fault, as indicated in the table below.











To unlock the system:

- Press "RESET" on the screen.
- If the fault reoccurs, contact your installer.

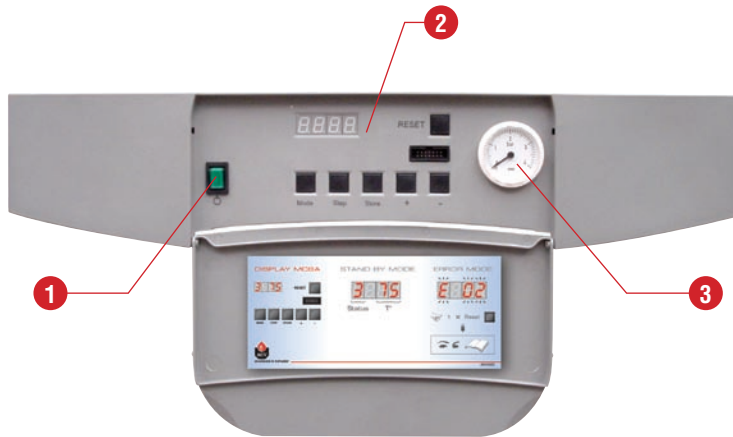
Codes	Description of the fault	Remedying the fault
	Abnormal flame signal detected	<ul style="list-style-type: none"> - Check the wiring (short circuit in the 24V wiring) - Check the electrode - Replace the MCBA (water damage)
	No flame presence signal after five start-up attempts	<ul style="list-style-type: none"> - Check the ignition wiring - Check the electrode and its positioning - Check the gas supply to the burner
	Gas valve or triac error	Replace the rectifier or the gas valve.
	Persistent lockout	Press "RESET"
 ↓ 	Internal error	If the problem persists after two "RESET" attempts, replace the MCBA
	EPROM error	If the problem persists after two "RESET" attempts, replace the MCBA
	Max input thermostat open or 24 V fuse has blown.	<ul style="list-style-type: none"> - Check the wiring - Check the 24 Volt fuse of the MCBA - Check link in 12-13.
 ↓ 	Internal error	If the problem persists after two "RESET" attempts, replace the MCBA
	T1 > 110°C	<ul style="list-style-type: none"> - Check the NTC wiring and replace it if necessary - If the NTC 1 sensor is OK, check if there is water flow in the boiler
	T2 > 110°C	<ul style="list-style-type: none"> - Check the NTC wiring and replace it if necessary
	T1 gradient too high	<ul style="list-style-type: none"> - Check if the pump is running - If there is no problem with the pump, bleed the system
	No tachometer signal from the fan	<ul style="list-style-type: none"> - Check the PWM connection - Check the fan's wiring <p>If the problem persists after two "RESET" attempts, replace the fan, otherwise, change the MCBA</p>
	The fan's tachometer signal does not drop back below "0"	<ul style="list-style-type: none"> - Check the draft in the chimney. <p>If the draft is sufficient, replace the fan</p>
	Short circuit NTC 1	<ul style="list-style-type: none"> - Check the connection of the NTC 1 sensor - Check the wiring of the NTC 1 sensor <p>If the problem persists, replace the NTC 1 sensor</p>
	Short circuit NTC 2	<ul style="list-style-type: none"> - Check the connection of the NTC 2 sensor - Check the wiring of the NTC 2 sensor <p>If the problem persists, replace the NTC 2 sensor</p>

MCBA PARAMETERS FOR THE SPECIALIST

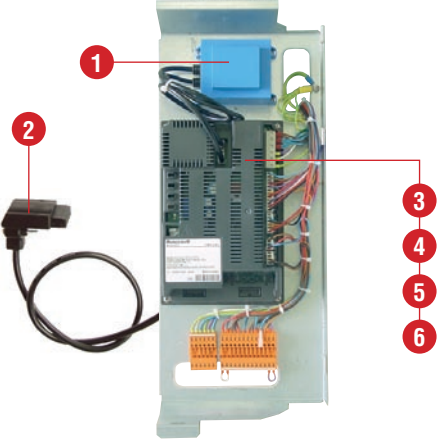






Codes	Description of the fault	Remedying the fault
	Short circuit NTC 3	<ul style="list-style-type: none"> - Check the connection of the NTC 3 sensor - Check the wiring of the NTC 3 sensor <p>If the problem persists, replace the NTC 3 sensor</p>
	NTC 1 connection open	<ul style="list-style-type: none"> - Check the connection of the NTC 1 sensor - Check the wiring of the NTC 1 sensor <p>If the problem persists, replace the NTC 1 sensor</p>
	NTC 2 connection open	<ul style="list-style-type: none"> - Check the connection of the NTC 2 sensor - Check the wiring of the NTC 2 sensor <p>If the problem persists, replace the NTC 2 sensor</p>
	NTC 3 connection open	<ul style="list-style-type: none"> - Check the connection of the NTC 3 sensor - Check the wiring of the NTC 3 sensor <p>If the problem persists, replace the NTC 3 sensor</p>
	Internal error	<p>If the problem persists after two "RESET" attempts, replace the MCBA</p>
	Flue gas temperature too high (NTC 5)	<ul style="list-style-type: none"> - Check the connection of the NTC 5 sensor - Check the wiring of the NTC 5 sensor <p>If the problem persists, replace the NTC 5 sensor</p>
	Error during reading of the parameters	<p>Press RESET</p> <p>If the error persists, replace the MCBA</p>
	Fan power supply problems	<ul style="list-style-type: none"> - Check the supply voltage of the MCBA. <p>If you detect no problems with it, replace the fan</p>

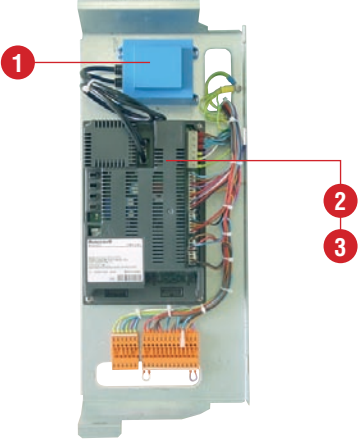





1	54766016
	
2	537D3020
	



3	54763010
	
4	257F1079
	

Prestige 50 - 75 	1	547D3021	3	5476G029	5	5476G031
						
			Prestige 50		Prestige 75	
	2	537D3016	4	5476G030	6	5476G032
						
			Prestige 50 P		Prestige 75 P	

Prestige 120 	1	547D3021	3	5476G039
				
			Prestige 120 P	
	2	5476G038		
				
	Prestige 120			





Prestige Solo 120

507F4141

2147C429

21480069

21475443

537D6292

21474420

21471441

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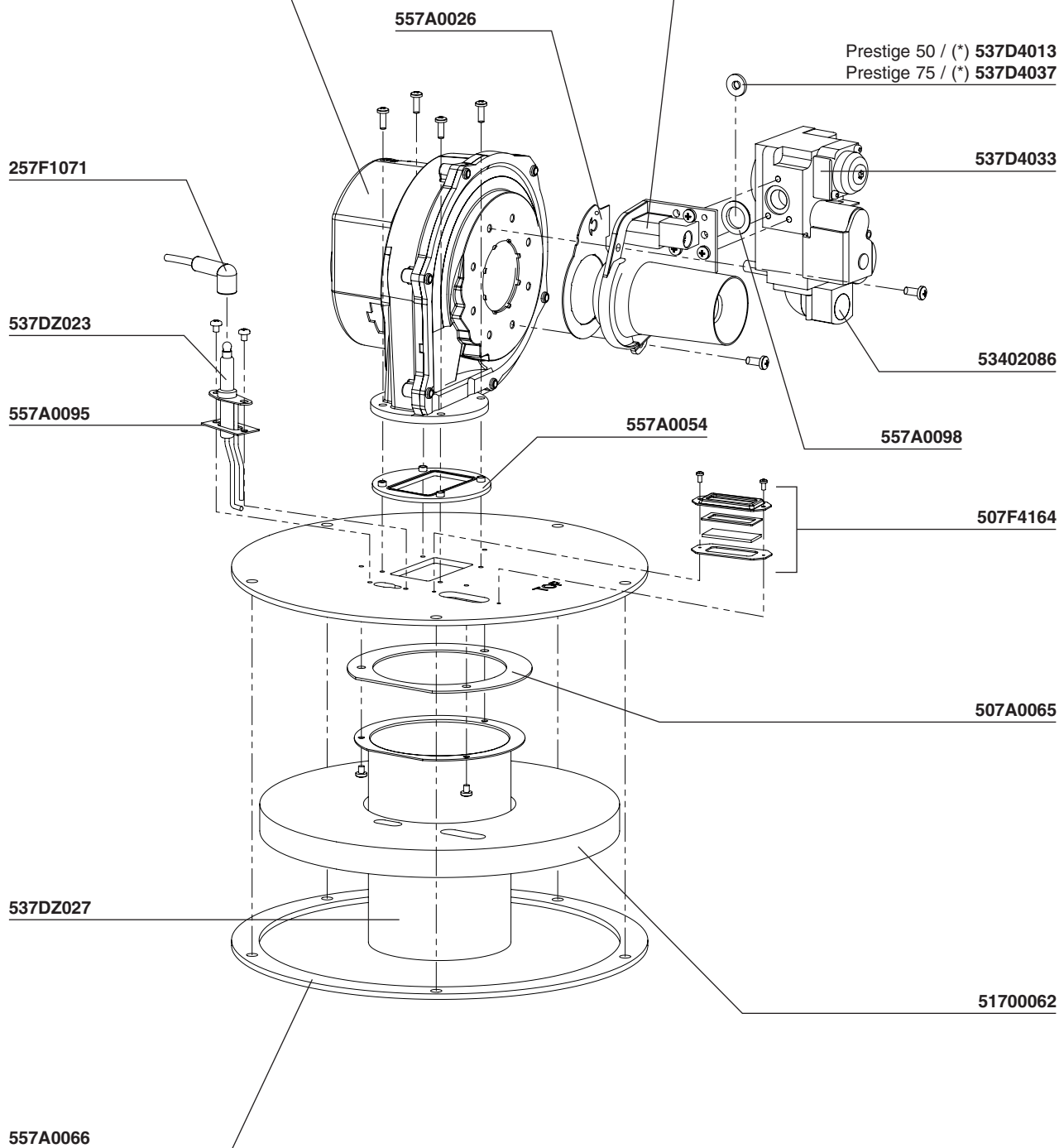




Prestige Solo 50 - 75

Prestige 50 / **537D3027**
Prestige 75 / **537D3033**

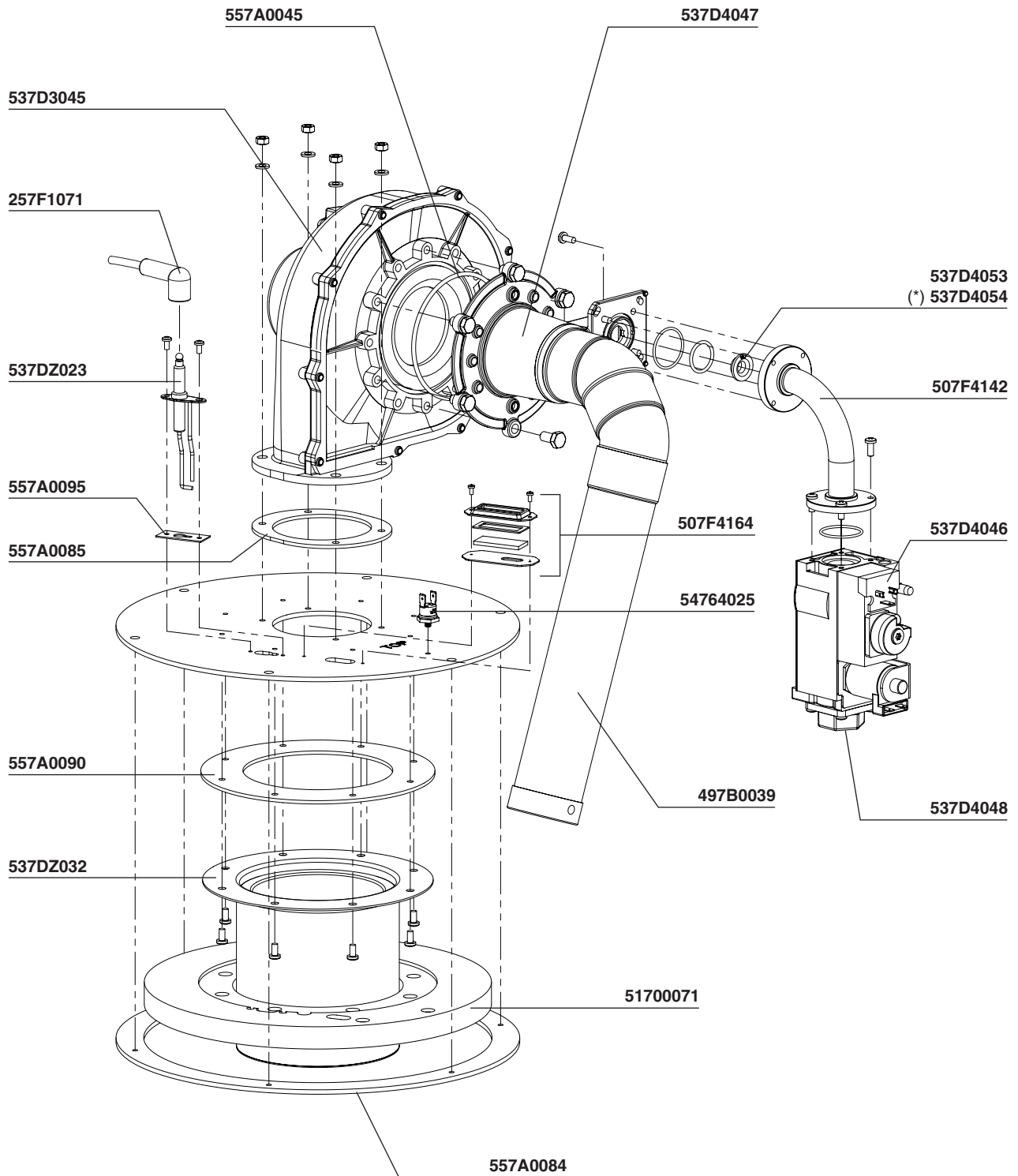
Prestige 50 / **537D6038**
Prestige 75 / **537D4028**



(*)
Burner propane - Brûleur propane - Brander propaan
Quemador propano - Bruciatore propano - Propangasbrenner



Prestige Solo 120



(*)
 Burner propane - Brûleur propane - Brander propaan
 Quemador propano - Bruciatore propano - Propangasbrenner



A series of horizontal dotted lines for writing, spanning the width of the page.